

SEQUENCE LISTING

SEQ ID NO. 1

ATGGGCACTACCTCGAGTGCATCATCTGTCCTGGACAGCCGCAGTTCAGCGATGTCTCCACCTGTTGAC
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 5 TCAAGCTTCTCGAGCGATACGACCAGTGGTTTGATAACAATGGCTTCGCGAAGCTGCTGTCTGCTCGCATG
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 10 CCAAACCAGTTGCCTACGGCGAACAGCAGTGGGAAAACCTCGAACTGGTCCGACCCTCCGCTTGTTGCGATC
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 15 TTGCTCGTGGAGCCTTCAGAGCAGGTCTATTTCCCTGGCGGAACTCTGTTGACGGAGCGTATGATCACGGG
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 25 TCCCTCGAAGCACCCCTTCTATGAGAGCCAGTATGAAGAGGAGCATACTGCAGCCCAGAATGGCTGGCTTC
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SEQ ID NO. 2

30 MGTTLCEIICPGQPQFSDVSHLLTHAASKAHLANHFKLKLRTDDPNSVKLLERYDQWFDN
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 35 LTERMITGNVEDYSPLKGETPIPKGGLTRTRSTRLTKADPNVSRADRKRQKTDKDRKNM
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 40 NGWLPVDQIVPSDVTIPEDDQIFPTYFSTDVN

SEQ ID NO. 3

ATGGCACTAATCACTCGCAAATACGGCGAGATCCGCCAGATCACAGGCCTGAGCGACCACGCTGTGATCCT
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TAATGGATTTTCGGCC

SEQ ID NO. 4

5 MALITRKYGEIRQITGLSDHAVILQSHKVQYCPPLDRYYAIKVFRSPGQSTDEYTKQVNAEFAVVANLHH
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10 SEQ ID NO. 5

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SEQ ID NO. 6

35 MTERSVQIWFQNRRAKIKMLAKKSIETGEGCDSIPESMRQYLAHQFDPSKPGARDPFGRTGGYGANGAYPN
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VSLESFQNRLAYGNFPANNSMSPPIQRPASQPNQFAPAFMSMYAENPAVMNLQAARGHQRQSRSPVPAI
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40 YGMGSEHQPSYTEEGMPMGGGMYKHINFSSVPTTVGLEGNAFDLPMHSMGSHASPGVQGDYQGI ALENVDP
NVLTPGS

SEQ ID NO. 7

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SEQ ID NO. 8

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15 HFQKCSIRRGNPTGATHLSHPNAHVKRSQQQAAANPVKPVQDEVSSSTVPPPNGIPGTTYGEGAVNGNGLAP
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SEQ ID NO. 9

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35 CATCCAGCCCTGGGAGCGCAATGTCACACGGCCCGACAAGCTATCCGAGTCCGAACCCACGTGGTTGCCCA
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SEQ ID NO. 10

MINETQEIHSENDIDRAPMRSSIELPSLRDHFKRDSLPPFSSPQPRSLLP SILNHSPGRSSTLPPIQRTN
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40 SELGRSPTIPPTIPNIASITSAPSIKSRSSMPPAFQSPGLPPPASHRFPPTSYAASPLHKSLTPPPYEF
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SEQ ID NO. 11

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SEQ ID NO. 12

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SEQ ID NO. 13

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SEQ ID NO. 14

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AKRLRTV

SEQ ID NO. 15

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SEQ ID NO. 16

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SEQ ID NO. 17

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SEQ ID NO. 18

MNNDFMQNNIRSAQDVEQIIISNIRFSGMTPLGSALRSKVLDPMIVGPARAGRLQKPVLVITITDGQPAGEP
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SQPGYPGQQPPYQQQPRY

SEQ ID NO. 19

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CTTCTCCTCCTACAACCTACGCTGCTCCGCCGCAGCAGTATTCTGAGCAGTATCACCAATCTGGCTACCCA
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CATATACTTACGCCAGCTCTGGCTATGGTTTCGAGAATGGGCGAAACAATGCCCCCTCGGTACCCTGGTCCT
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SEQ ID NO. 20

MTSRQNEYFIPGDGISREVIQADICRYLGNDALVRPGNHNGRAGFFIRAYRNLTSEMIADLKADSARWEAD
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GYDADSDYSPVTTGMAYPATAPDPRIGMEPRYTPESTYDRSRPQPAREREAPRTR

SEQ ID NO. 21

ATGACACACCGAGATTCCGACTTCCGTCATCAACTGGGCAAGTTTCGACTCGATACCCTGCCGTGCCCCGC
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CACGCGAGTTCAACGAGGACTGGACCGAGGCGCCCGGGTCGAGTGCCATGACCATTCAGTGCAGGTGGTG
CGACTACGTCGGATCTTTTCGCGCATCTACCGATATCTGTACAACAATCAGCCCCCACCCTTTTCATCCGA
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GCGGCCGGGGGTGGAACGTCTGGCGGAGACATTCCGTCAACAAAGCACGACGATCTTCAGCCATCTGGTGG
CATATCAGCCCCAACCTCCACCGCAGAGCCAACCCCGGCACCTCCACCATTATCGCAGTCACAATCGCAG
CCCCATATGCTGGTGGCGCCGCGGTCCCGCTGGCCCCGGTGCTGGACGACGTGCTGCTGGTGGACGGGTC
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AGATGGCGACGTTTTATACCCTC

SEQ ID NO. 22

MTHRDSDFRHQLGKFRDLTLPSPAVAAAAAPPLISSTLSLSSPNTTTTTTTTTTTTTSSSGPVRSKRVTACDF
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SLIIGSADGAQAIEFYRASQETFSMALQNEDLAAVRALLSMALYTMFATSGPSVWHVLGTALRLATSLGLH
KARPAASLVEEEMAKRAFWSLYNLDRLIASTLGRPLGLADEEDITVGLPREFNEDWTEAPGSSAMTIPVQVV
RLRRIFSRIYRYLYNNQPPPLSSEVTATLRHFRQELDDWRRAPVYPPALLYSTSYDYDLFATTVLLMYRP
SPRNPTPDTLSIISCGDASIQVIRSYWDSYSVGKLKWIWLTLSQIYFAGITILWCLHQNLRAIQDGOAPPW
QPDDQTMRRGIQAVVVLMEEFGRKRRPGVERLAETFRQOSTTIFSHLVAYQPQPPQSQPPAPPPLSQSQSQ
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SEQ ID NO. 23

ATGTCGCCCCACTCTGCACCCCCAGGCCTTCTACGGCACGTTGATCCATTCACCTCAACCCATCGACAATCGA
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ACGCCTACGCGCGGCGGCTCTTCCACTCGTGCGTGAGCGGCGGCTCAAACAAGGCGTCACGACAGCCTGC
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CCTGCTGGGCAAATGCAACATGGACCGGCACGCGGTGCGACTGGTACGTGACGAGTCGGCGGCGGCTCGG
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TCGCTCGAGACGGTGTTTGAGAAGTTCTTGATGACGGGGGATGATCGCAACATGGTGCGAGTTTTTGTCAA
GGGGAGGGAGGTGAGGGGGTTG

SEQ ID NO. 24

MSPTLHPQAFYGTLIHSLNPSTIEYLPNTLIIIDQHGKIEGLHPQIPASSIQSLLATHNHTTSCPTTILS
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AHAIYLSPREMDRVQALDCGIAHCPVNTTMDDEFMVAPVREYLARGMKVGLGTDCGGGFSSSMLDVMRMAF
MVSVARETQTDGRDKPLSLAEGFYLATAGGARVCGLAEKVGRFAVGMEFDAVLVRTGDEVVGVMTPVEED
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SEQ ID NO.

ATGCCCGGTGTCGACAAGATGGCCACGGCCATTTCCCAACCCACTTCCCATCCCCGAAGATGAAGCGACC
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10 CAGAAAATGATGGTTGAACCCGCGGATTTGCCTGAATGTGAATCACGACTGACGCGAGCCCTCGCACCACC
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20 TCCCATGAGCATGACGTCTTCTATGCAGGGTGCTGGAAGCCCTCAGAGGCCCTCCATCAGCGCTACAGCACG
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25 CAGCAACTCCTGGCGCAGCAAGGACATCTCGGTTCATGGCCAGCTTACTCCGCAACAGTACGCTCAGTTGCA
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30 AAGCCAACAGCGGACATCCACCGCAGAACATGCAGGGAGTAAGCATGGCACAAGGTGCTATGGCGCAGCGC
TACAATAACATGTACCAACAGCGCTTGCTACGGTTGAGGCAAGAAATGGCGTCCAAGTTGATGCCCCAGTA
CGGGCCCCCGGGGAGTACCCACCGCACCTTTTGCAGCAATACCATGCTGGGCTCGAACGGAACGCTAAGG
CCTGGGTGAGCGATATCATCCGCCGAGAGCGTGAGGCGCACAGCAACAACGAGCGAACCAGGTGCTGCC
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SEQ ID NO. 26

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45 VRNQTPHNTSSPLVGNAMGTQAGVPMSMTSSMQGAGSPQRPPSALQHAHPNLMSHPMAASRSQQGPSRHGT
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50 VQAQVLQQQQQQQNMNQNGMGK

SEQ ID NO. 27

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55 TCGACATGGTTCGACTTCTACCCCATCATGGACTACGAGGAATACGCAGAGAACCTGTCCCGTCCGATATTG
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CCAATTGGCCGCTCAAACAAATCTCAGTCTTCCCCGAGTCGCGAACTGGTTCCAAAACAGACGGGCCAAAG

CGAAGCAGCAGAAACGTCAGGAAGAATTTCGAGCGCATGCAGAAGGCGAAAGCGGAGGCCGAGGAAGCCGCC
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 5 CAACGAGCGTTGAACGCCGCGGTTGCAGCTCGCGACCACAATAGCCCTGACAATGAACATCGTCCAGCTGG
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SEQ ID NO. 28

MNYLHQPYQYVAHPGIPMDQPMSEFDPTMGHPAMMHPMDGGYLYQHPPFDMVDFYPIMDYEEYAENLSRPIL
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 30 QRALNAAVAARDHNSPDNEHRPAGNPNAEGSISPATPFLDTHTPGHHYADVQSAQSALNTPYPEWDHSHKW
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 HGVRQSKSTQCLNSRYAGVRKASAAQSRPLNLSNFAEAGAFGSKAEMSSMLQPAVTTGALAPPTPLTPEDL
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 35 VHCD SATMTGRSWTDATSMPSPEASFQSRCPMPQQADGSMYSERSVDTVPISESPSLVYSTSEGDLSVHAD
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SEQ ID NO. 29

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 45 ATGATGATGGCAGCCGCCCAAGCCAACAGCGGACATCCACCGCAGAACATGCAGGGAGTAAGCATGGCACA
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 50 GCATGGGCAA

SEQ ID NO. 30

MNQAMMGT PQMAGGMGLTPQQQQQMLMQQRQQLLAQQGHLGHGQLTPQQYAQLQANAHAAQOSIQSHPQHMM
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 55 LERNAKAWVSDIIRREERAAQQQRANQVAQVLAQQQQQQQNMQNGMGK

SEQ ID NO. 31

CCGCGCCGCTGCTGCTGCCGCGCCGCGGGTCAGGACAATGCGATGGTCGGCGCCCCGGCAGGGGCCATGAT

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CCTCATCGGTGAGCCTCCTCCACCTCTCATGAAAGGAGCGCGCCCCGCCAACGAAGAAGTCCGCCAGGAT
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GCAGACCGTTTC

SEQ ID NO. 32

MPPPASAVDFSNLLNPQGNATSSTPSTPVDSSKAPSTPTSAQSNTSMASSVSLLPPLMKGARPANEEVRQD
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EPQPEGPNIYSPAQGHVGPSISDIMS RPDGTQRKLPVPQV PKVAVQDMLNPATGFSSVSSSTNNSVAGGDL
ADRF

SEQ ID NO. 33

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 5 CCCAGACCAGGCGGGGCAGGGTCCCTGGATGTCGGGCCCCGACACAAGCCCCCAGCAACCGCCGATGATGA
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 15 CTTGGAACAATCTGCCGGAGAAGATCCGTCAAGCTTATCATGATACCTTGAAACAAGCGCCCCCGATGAAA
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 CCGGATGGATACCCTGGTCCAGTGGTTTGCAAAAATCCCCGGCCAAGAGAAGAATGTGCGCAGTTTGCTGG
 CAATGCGAATCCAATTGATGAGGCAGTTCAAGAATAGTCCGGACTGGGTCTTAACGACAGCCTGACCATC
 TCTCCCGAAAATTTAACCGCCACCATAAATTATATTAAGAAGCTCTTCCATGCGATGATCACCCGCGTCAG
 20 TCAGCATCAAAATCAAGCTCCTGGACAACGACCCGGCGGTCCCCAGCCACCCTTGACACAAGCAAGCCAAA
 ACGCCATGCCAGCCCTGAATGCCACGAACCTGCAACAGCTCCAGCAACAAGAGGAAGCTCTCCAACGGGCG
 CGGCGAGCGTCGAGCCAGACCGCCGTGTCTGCAACATCGGCTGTCCACCCGCCCCATTTGGCGCGCCGTC
 CCCTCAGGGCGTTCTCATGCGTACGGGCGGGGAAGCATGCCGCCGGAGCAGTTGAAGTTGCCTCCGCCGA
 AGAAGAGAAAGCAGTCCCATCCAGGGGCTACCCCCACCGTCGGCACGCCTGCTACCAAGCCGCCAACCACC
 25 CGGCCCCGCCGACGTCAAAATGCCC

SEQ ID NO. 34

MNPFANFNVGGSMPAAPTQMPRLDNNQVMMNYVAQALHAQGTYTGWRAEVPKERVVRVYQMFTSLRLIQP
 30 QADLQHLAQALSFEQKAFKDAQKVDYDKECNDKLLHIRDTRARQAQAVMONGMIPPGAPKAGGMRGVGQP
 SFPQQMNRAMQSNPMAGQQAMAMGMTDPNQQAAMPQRSQQQQAMMQQQQQQQQQQQQQQQQQPRAQQRSA
 NTLALVDELNNLTPQEYENVNRVAHQIMTKTSPVDAEKIKRNLQNMNPVQRRYLTERNIDPVAYFFRSQAL
 AHLKRQMKARVDMSHPQNTGVDPNNVMMGADPTMNPQMFPNMNLQRNSAFAMGNQPNMDPSSFIGNVENT
 QGQQADGLRSQEAGQLVVPASSSQMNQQPFNNAQNTFPMGQQLAQGGQANLGAAGINPQMFAQQHMQNTPN
 35 MPPDRPQPAAPFQPQTQAQNQAQAQARAQAAQKAQMAISQAGQANSHLQQPMPQQSPAMPMLNRPMPPGQM
 SPAQMAAQVRPPSRAPAMGQQPSMGGQQPMQGRPQIPPGLPPIQEQLAQMSPEQLNRVLAQRRAMANNPA
 LARANAARQSVPMQQSVSQAQAQSMANNQNMAMNVQAQLAGMGAQQMMPGQQMSLQQQQQQQQQQQQRQ
 ELYKMQLLQQSGGNLELSNEQSKEMDRLHFPPSLGNNPNIVSLVPKNIKTWGQLKQWAATNPQLPGGLNL
 QKLMAHQKFHFTQILNQSKERSRNPDAQGQGPWMSGPTQAPQQPPMMNPQQFPPGQQQAANMAAIRPVTA
 40 QDIQAARQRHPAMAQNFTDDQIRESLNKARQRQLMLLAQQRAAQAEELAAQQQQQTQALQQTPVGGPAPGPH
 LRPEGPGQPATQPQQQSPATKAPSTVPGKKAPPAKQQPAKRKLPSDETADAQNPDNQVAQKPTQAGAPQGV
 AAPAPSKPNMPFTREQLAAMTPQQRAQIEAHMRRQQGQTRTKAAAEAEAWNNLPEKIRQAYHDTLKQAPPMK
 FAAITPEQHAAMNQQLRDCTDMLGRMDTLVQWFAKIPGQEKVRSLLAMRIQLMRQFKNSPDWVLNDSLTI
 SPENLTATINYIKLHFAMITRVSQHQNQAPGQRPQPPLTQASQNAMPALNATNLQQLQQQEEALQRA
 45 RRASSQTAVSATSAVPPAPFGAPSPQGVPHAYGPGSMPPEQLKLPPPKRKQSHPGATPTVGTPTATKPPTT
 RPADV KMP

SEQ ID NO. 35

ATGCTCCTACAGTTCGACGGCCGGTCTCCATATGGCTGCGTGGAGTGTATCCCCAGCTGATCCAGTGTGT
 50 CGACAAGCCGTCTCGTTGCCCGTGCCCTTTGCGGCGCCAGCATGACCTGCGACTACATGGCGACCACCCAG
 CGAACTGGTCCACGACTACCGAGTCCGCGTCTTCACCGGCGATGACCTCCATTGCGGACCCCATGAACCAC
 CCGCTCGCCCACTTCGCGCCTGCGGGGGAGCTGAACCACACCGAGCTCGAGCTGATGGTGCAATGGTGAC
 CGACACCTACCGTTCCGTGCGGCACCAGCCAGCGTGAATGGATCTGGCATGCCGCCGTGCCTCGGGAGG
 55 CCTTGCAACGGCCCTTTCTCCTCCACGGCATCCTGGCCGTCTCCGCCCTGCACCTCTTCTTCCGCACCACC
 GGCGACACGCAGGCACACTACTTGCGTACCGCCACGCCCATCGACAACACGCCGAGGAAGGCCTCTCCCA
 AGCGCTCCGCGCACTGGACGCCTCCAACGCAACGCCGCGTTCCGCCGTCTGCAGCATGCTCACCGTCTTCT

CCTTTGCCCTGCCGCTGGCCGCGCGCCGCACCCCGACAGCCGCACACAGTCCGCTGGACGAGCTGTGTCAC
ATCATGCGGCACACGCACCAGTCCATGAGCTCCCTGTGCGAGATCGTCTACTGGGTTCGGCCGCGGCGACCT
CCACGCGCTCATCGAGTGCAGACGAAACCGCACCCCGGATGCCGGACACGTGCGGGCTCGCCATCATGGCGT
TGGCGCGCCTGAACGATAACCCTGGCGACGCAATCCCCGCAGCACGAGAAGCGCGTATTTCGACCGCGCCCTC
5 GACGCCCTGGGCCACTCACTCGACCAGCTCGCCCGCGGCGGCGAGCTTCTCCTCTCGGCCTTCCGGTGGAT
TGTGCAGATCCCACCGCGGTTTCATCGAGCTCCTCCACGAGCGGCATCCGTTTGGCTGGTGATCCTGGCGC
ACTATGCGGTTCGTCTGTCATCTGCTGCGGGAGCGTTGGTGGGTGGGTGACTGGGGCGCACGGGTGATTCAA
GCGGTGGGACGGAGTTTAGAATGGGAGTGGAGAAAGGCCCTGGGATGGGTGTTGGATCCGACGGGATGTAT
10 TCTGCCGCAA

SEQ ID NO. 36

MLLQFDGRSPYGCVECHPQLIQCVDKPSRCPCLCGASMTCDYMATTPANWSTTTESASSPAMTSIADPMNH
PLAHFAPAGELNHTLELMVQWCTDITYRSVAHQPSVEWIWHAAPREALQRPFLHGLAVSALHLFFRTT
GDTQAHYLRTAHAHRQHAEEGLSQALRALDASNCAAFVCSMLTVFSFALPLAARRTPAAHSPLELCH
15 IMRHTHQSSSLCEIVYVWVRGDLHALIECDETAPRMPDTSRLAIMALARLNDTLATQSPQHEKRVFDRAL
DALGHSLDQLARGGELLLSAFRWIVQIPPRFIELLHERHPFALVILAHYAVVLHLLRERWWVGDWGARVIQ
AVGRSLEWEWRKALGWVLDATGCILPQ

SEQ ID NO. 37

ATGTCCGGCTACAACAACCAGTACAACCAGGGCTACGGCTACAACCAGGGTGGTTATCCCCCGCAGGGTGG
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ACTGATGGGCGCTCTGGCCGGTGGTGCAGCGGGTGGTTTTCGCCGGTCACAAGGCCAACCACGGCTTCCTCG
25 GAACCATCGGCGGTGCCATCATGGGAAGCATCGCGGAAGATGCCATCAAGAAGCACAAGAACAAGAACGAG
GGTCCCCCGAGTACGGCAGCAACTATGGCGGCAGCCAGTATGGCGGCCCTCCTCCCTCCACGGAGGCTC
TAACAACGGCATGATGGACCAGCTGGGCAGCTTCTTCAAGAAA

SEQ ID NO. 38

MSGYNNQYNQGYGYNQGGYPPQGGYSQGGYGQSQGGSSANDYYGGQQPQHHQQHGYNQYDQSQQGYGQQQY
30 GQQQYGYQGHDDQAPGEAQEGERGLMGALAGGAAGGFAGHKNHGFGLTIGGAIMGSLAEDAIAKKHKNKNE
GPPEYGSNYGGSQYGGPPPSHGGSNNGMMDQLGSFFKK

SEQ ID NO. 39

ATGTTTCGCAGAATCCCAACCCCCCAGCAGCGGTGGCGACACCCCCAAGCTCCGGGCGGCTTGTGAGAACTG
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CTGGGCCAGCTCCAGGACGAGAAGCCGGTGCAGGGCTCGCACAGCGCGCGGGAGCCGAAGAAGGCCGTGGA
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40 GGCTGTCTGAGAGTCCACATATGCACGACTCCCACCCGACAATCGACGCCTGCATGCTAGTGAATGAGACG
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GTCGCCGACATCGCCACCTTCCTGCAAAAGGAGTTCATCACGAAAGGCCTGACCAGCTTCCCGCTGGCCG
TGCACGTCCCCGGCGCCTTACCGCCGCGCTGCGAGTGCGACGAGGCGCTCGGCTTCCACTTGAACGGACTG
CGACATATGGTGGTGCACCCGGCGCGGCTGCGCTTCGACCAGGGCCTGCAGGCGATCAAGACGGCGCTCGC
45 CGTATGTCAGGGGTTCTGCGGTGCGCGCGCTGTCCAAAGGGCAACACGAACTTCCTGGTCTCGCTGTGCA
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GGGCCCGCGGCGTCTGCTGAGAGGCGGAGCCCATGGCTTACGGCGAGTACGAGACAGCGCCCGAGGAGGC
GCGGCACATGCGGCGGGTGGTGTGCTGCGCGGGCGCCTGCTGCAGTGCAAGGAGGTGCTGGGCCTGCTGCACG
AGGCCGTGGAGCTGGCCGAGGGCCAGGGCCTGAGCAGTAGCAGCAGCAGTAGCGAGGCGCTGGACGGGAGC
50 TGGCTGCAGCAGATCATCCGCGGGTATGCGAGCGCGACGGAGTCCCTCCTCCAGCCGCTGGGGTGTATTTG
CGGAGGCAGCGCGGTGCAACTAGCGCATAGACCGAGTACCGGGTTAGATAGGCTG

SEQ ID NO. 40

MFAESQPPSSGGDTPKLRAACENCRRQSKVKCNLGGKNTCIRCLRHGLPCRYRVANRSGKPKGSKNRATLRK
55 LGQLQDEKPVQGSHSAREPKKAVEPVCPPEYEVDRRFEYQTSEPSQPRLSESPMHDSHPTIDACMLVNET
PIDYTATYGGPFSPAMPMTCPASMSPTSPTFLQKEFITKGLTSFPLAVHVP GALPPRCECDEALGFHLNGL
RHMVVDPARLRFDQGLQAIKTALAVCQGFLRCARCPKGNNTNFLVSLSTLDLVLQLFDFWVSCEFAAHGHGH

GPPASSLEAEPMAYGEYETAPEEARHMRRVVLGRLLQCKEVLGLLHEAVELAEGQGLSSSSSSSEALDGS
WLQQIIRGYASATESLLQPLGCICGGSAAVQLAHRPSTGLDRL

SEQ ID NO. 41

5 ATGGACGATACCCACCCCGCCGCCACCGCCGCCGTTGCCCTGGCCCAATTACACCACAATCGCTTGGT
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TCGAGCTCCCCTCTCTGCGCGACCACTTCAAGCAGGACTCCCTCCCACCCTTCTCCCCGCGACCGCGCGAA
CTGCTCCCCTCCATCCTCAACCACTCGCCCCCAGGTCGCTCCTCCACTCTTCCCCCATCCAGCAAAAGAA
GTGGCCGCGCCCGCGCAAATCCTCCATCTCCGGCGCTCGCAAGCCCAAACATGAACGCTCCAAGTCCAAGG
10 AGTACGGTCGCCGCCCCAGCTTAGGCGATCGCAAAGCCCTGTCCGCCGAACCCAGACCGCCGCTGGGCT
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15 GGAGCCCTTCCCCTCGATAGAGTCGTCCCTCGACTCCGCCTCGACCGCGTCCGGAAAGACCCTCCACTATA
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CACCATCGCTTTTCCAACCCACCCCCGCTCCATGCGGAGCCGCGAGATCCAGATCTATTGCGCCCACTG
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20 CACGGCCCGACAGCTATCCTAGCGCCCGAGGTTGTCCCCGCTGTGCGACCGTCCGGCGGCAAGTGGAAGGC
TTTTCAGCTGGATTTCAAG

SEQ ID NO. 42

25 MDDTHPAAATAAVALAQLHHNRLVSDWETDMESHSDNDISRDRMRSSIELPSLRDHFQDSLPPFSPPRPRE
LLPSILNHSPGRSSTLPPIQQKKWPRPRKSSISGARKPKHERSKSKEYGRRPSLGDRKALSAEPQTAAWA
QGKRWEDLIEAATSATEADDERHSEVGRSPTIPVSSFTSAPMGKNRSSLPPGFQGLPPPTSHRPFPPHPY
AASPLNKSLTPPPYDLARSRDNDLEPFPSIESLDSASTASGKTLHYNHVGPNANDSSPVLNMFSSAVQRQ
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30 HGPTSYPSARGCPRCRTVGGKWKAFLDFK

SEQ ID NO. 43

ATGCCACCTCCTGTGCGGCAGATACGGCATGGGCGCCGCCCCCTTCGCTCATTTGCAACAGGCCCATCTCCA
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35 AATGGCATGTGCGTTCGCTGCGTTTGGCGGCGACGGTGGAGGCACGGGCCTTGCCAGTCATGCCGCGCAGAT
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AGACCAAAGCCGGTGGCGTCAAAACGCGGATACGAGACGTATGGAAGCATAATCTTGCTCAGGAAATGGCG
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40 AGATGATCCAGCTGGGAATCACCTTTTTTCTTCCGAAGGAGAAGTTCCTCCCCCAATGCCACCGATGCG
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45 CCCGGAGAACGAAGAGGAATTTACAGGCTTCTCAACATCTTCTTCCCGTCATTATACGATATTAAATACC
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50 GGCACCCCCAGTACGCCCAATGCTGTTTCTGTGTCACGGGCAGCCACACACCCAGCATGCACTGACACC
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SEQ ID NO. 44

55 MPPPVGRYGMGAAPFAHLQQAHLQQQPPQHHPHAQSANTALPPPSLGGHPGFAASTNTNMNPF TLSGTGIA
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ILRQLVEKYPYISMDTEFP GIVARPIGAFTNKADYHYQTLRCNVDLLKMIQLGITLFSSEGEVPPPNATDA
NGQPLGNGLVPAPCTWQFNFRFSLEDDMYAQESTAMLA KAGIDFAMHDKNGIDPF EFGALLISSGLVLLDD

VHWVSFHSYDFGYLMKIMLCKPLPENEEEFHRLNLIFFPSLYDIKYLKMHAGRNQAKSGLQDIADELGVK
RVGIAHQAGSDSLVTGEIYWKMRQLVFNGNIDEAKYSGQIWGLNGQMPALLYSMQPHQTPNLNGATIYSAT
GTPSTPNAVHSTGSHTPQHALTPGATGGVLGQFQMAKS

SEQ ID NO. 45

ATGACCGAGCGCTCCGTGCAGATCTGGTTCCAGAACAGGCGCGCCAAGATCAAGATGCTCGCGAAGAAAAG
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CGAATAAACCCGGCGCACGAGACCCGTTTGGTTCGACGGGGGCTTTCGGTCCCAATGGCGGGTATCCCCAC
GACTCGGCCCCCTCTGGCAAAGTTGTGATTACCATTTTACCTGCCGCTCTTTGACCATCGGTAGCTGGCG
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TCAACAACGACTCGGCCGGCTACAAAATCGAGTACCCTTTTGCCTACATTAAAAACATCACGCTGGAATCG
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GCCGCTCTTCTACATGGATTCCCTCCAACCTCCGGTGGCTTCTACCAGTGCGGCGACTTCACCGAGGACCAGC
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ATGTACGGCCTGAGCAACGAGCATCAACCCCATTTTTCGGGACGAGAACATGTCCATGAGCGGCATGTTCCC
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AGACCCTGTCCAACCACCCGTCGCCCGGGGTTTCAGGGTGACTACCAAAGCATGACTCCGCTGGAGAATGTC
GATCCCAACACGCTGGCTCCTGGGGCG

SEQ ID NO. 46

MTERSVQIWFQNRRAKIKMLAKKSIETGEGCDSIPESMRQYILAMQFDPNKP GARDPFGRTGAFGPNGGYPH
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GDQTAQPNGAPPRPGLIVELNRPPLFYMDSSNSGGFYQCGDFTEDQQASQLLVHHLGGHPKVLSVQLAKL
VSLESFQNRRLAYNNFAMSAPMSPFFIQRPASQPNQFAPAFVGMYAENPATLSLQQAARGHKRQRSRSPVA
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SPSLFSTGPPGESTPVATSIHPQFNMPFVSPPVDSSTLATQAASPYSTVSHADPMIADQSPMTNMHASQE
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DPNTLAPGA

SEQ ID NO. 47

ATGATGCCAGCGCAAATGCGGCAGCTTAACATGAGAGGAAATGCAATGGTTCCTCCCAACCTTCAGAAGAG
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GCCGAGAACGCCCCTTCCCCATCCAAGCGGCCCCGTCTGGAAGGCGGACCGATGAACGGACAACAGTTAGC
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AAATCAATCCAGGGCATGCCGAATGGCATTATGAATCCCGGTGTGATGCCAAACCAGACGGATCTGATGCC
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CGGCCAGCCCCCAATGCCTGGGCAGCAGCAGTTGCCGCCAGGCACCTCTCCCCAAGGCAGCAGGGCGGGCG
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GGAACGCAACCAAATGCCGCCGCCAGGCTCCTCCCGCTGCTGGGCCTAATTCCGGACGCACGCAGCCGC
CGTCTCCTCAGACCGGAGCCGCTGCCCCCTCCACGCCCCAGCAATCCAACAAGGCCGCACCCAAGGGGAAG
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CGCGTCTGCTTTCAACCTGGACTTCAGCGCCCTGGAGAATCCGGACATTTTGGAGAACTTCGACTTCGATA
5 CCTTCTCAACACTGACGCGGATACGGCGGGGTTTGGGTTTGATCCCAACATGCCATATCCTGGGGACGGC
GTTGAGACTGGTGCCGGAGAAGGTCTG

SEQ ID NO. 48

10 MMPAQMRQLNMRGNAMVPPNLQKSVLQNNNTSGLSQQQIAQLQKNQHLQMMQMQRDQSEMDMNGHRPQSPAS
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KSIQGMPPNGIMNPGVMPNQDLMMPPEGQGMYPMNGDYYGANGQMAQVRAGMQTPGNQGNHALQDYQMQLM
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QGAQGMPPPPQSPAAQPATGTPQERNQMPPPQAPPAAGPNSGRTQPPSPQTGAAAPPTPQQSNKAAPKPK
15 KDTKDTNRKRPKKAAGPAAAAAASNTAATPSSEAEHATTPSTPITPQHNSFNKPGPNTTTSAPQQPTSAP
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VETGAGEGL

SEQ ID NO. 49

20 ATGGAGTATTCCGGGGCAGATCCACCTTTGTTGCGAAAACCAGCGCCTTGGCAGTCACGCATCCCTTCTG
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25 CGGTCATCACGCATTTACGGCTTCTTACCAGCGCCTGGATGAAATTGAATCCTCATCGGTACCAGGCCTTC
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30 TCAGTACGGCATGACCACCACTACTCGCCCTGGGACCAAGGCGCCCTCTCGTTTGATGTGAAGTTCGAGTC
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CGTCGCATCGCCGCCACCAACCCCGCATGTCAGCCCCGCCCCCGATGACTTCGTTACCTAACCGGTCTCAG
ACGGGGCCGAGATTGACTGAATCCGTTGGTGATGAAGCAGAACTTGAGCCACTCGCTCCCCGTCACGACT
35 CCATTCAAGAATTCGCCGTACAACCAGGCCATTTCCAAAACCAGGACTTTGAGCCAATCCACTGGGAACC
CAGTGATTCCCGCAAA

SEQ ID NO. 50

40 MEYSGADPTFVAKTSALAVTHPFCRIMKRDGNCGWRAAAFYFESLENLHNLHAQSELVRIKGLNSLLDQ
VGHQEHLYEIVFVATESVFEQVCEAIQAGVRDDSFLLKDLFNEEFNSSAVITHFRLLTSAWMKLNPHRYQAF
LPLPLDQYCTTRIETVKTEIDEVGLQALVDGVIEPSGVAVEIILYLDQRSQGEAVTPHLLTPSRPSASTIRLL
YRPGHYDIAYQAEPTVTMEPIVNYQYGMTTNYSPPWDQGALSFDVNSSLMSIPNLMDPSFALSPSPMTPAP
SPYRVSPPPQEVFPMPMHTPPPPVPVASPPPPRMSAPPPMTSLPNRSSDGPQIRLNPLVMKQNLSSHSLPVT
45 PFKNSPYNQAHFQNDQDFEPIHWEPSDSRK

SEQ ID NO. 51

ATGGCTACTACTGACTGGCAGCCCGACTTTGTACCTCCGAACCCACCGGCCCTAGAGAGTGTAGGAGCTCA
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CGACGGGGCGAGATAGTGGACATCTGCAGCCGTATGCTCCCAAGTATCCTCCTCCGCTCCCAATCCCTGCC
50 CATCCTGTCCCTTCGGCTGCGGCCAGCCTGCACCATCAACACATCCTAGCCAACCGATGGCAGCAGAAGAA
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CCCAGAAGTACCTGGAGTATCGAGCGCGGCCTCGACGGGACACGGGCAAGGATGGGGAGCCTGTCTGGTCCG
GATGAGCTGGAGGATGCCTTCCAACAAGCACTCGAGGCAAACCCTCCCATGGGCCGGAGAAAGTGGTCCGA
ACGGGGCAAATCCTATGGTGCAAACGAGCTGATTGCCGAGTTTATCTACAAGGCTACGGGCAAGAGGAGAA
55 CTAGGAAACAAGTGTCAGTCACTGCAGGTGCTCGACTCGTTCTCAAGGGGGACCTGACTGGGAAAGA
CTGGTACGGGAACAGCCGACAGACCGCTCTGCAGCCCAGCCTCAAGCAGCTGGCCCAAGGTGGCGGACCTC
CATGGAACACCCCTGTCAAGTCACTACAATCATCTCCACGCTCCTTACCATGATCCTCTGCGACCTGTGC

AGCCTTACGTGGGGGAGCTGCCTCCCCCTTCCTTTGCCCCCAACCCCAACGTCCATGATGCCAACATCAAC
 ACCGTCCAGGGCCTCAATTTTGACATGTGGGTGAGTGCACCGAACCCAGCCGGACCGCATTGAGAATGCTTT
 CCATGTATACACCCGCTTGACAGGGCGACCAACGCCATCCCGTGGCCCCCTTCAATGCCGTTGGAGAACATCG
 TCGGGTGGCGGACCTACTTCCCTTATCTGAATTCCTGATGGCGGACCCAACTGCTTCCCTGAACTGCGAG
 5 ATCATCCTCCTCGAAGCCAACCTCGAGTTGATGGACGACTTTCCTCCGTCCGGTTCGCGGGCTGGGGATCCA
 GCTGGAGCTGGACTTTGCCCATTCCGCTGTGGGCGATGCACCAGTCAGTCAGATGGACAACTGGTCTTGCA
 GCACCTACATGTATGAGGAGAGCCAGAAGATCCTGGAGGTCAACCACAGCCTTTCAAAGCCGGCTTCGACG
 AAAGTCAAGCCACCGTTTGAATCGCTCTGGTGGGCCAACTCTTCACACAGCTCACGCAGGAGAAGCAGAT
 GGCCGAGAAGGCGGGTCAGCATCATGCGGCGGACGAGCACACGCGGCACCTTCTCCGGACCATGTCTGCGG
 10 TGCAGGAGATCCGTGCTACGTCTCCCAACTCCCGTGCAGTCTCCAGCCACTACGGCGGGCTCCTCGTGCGAC
 GAGAGTAAGCGGGTCGCGATCTTGCTCTGGAAGTTCCGCCAGACGCGGCCTGGGGAGGTTGGCACCACGAC
 CTGGCGGAGACTCTTTCGCGCGCGGACCGCACGTCCACCAATAGCCCTCGTCCGGCGACGGGCATCGACC
 TCCCCCGCTGTCACTGGACTCGATCCTGCTCAACAAGCCCGCACCCAACTGTCTACCAAGCGCCTCCGCGG
 CAGCCACACGAATTGATGCACCACCACGGCGCGTTCGACGCTCCTTGGCAGATGTACCCACCCCGCATGA
 15 TCACATGTACCCACGGGGAGCTTTGATCTTCTCAACTCGATCTCGAAACCGGAGGACGGCCTGGGTGACA
 AGACGGCGGTCTCGTCGGTGATCGACCCCTTCCCAATATGCAGCAGCATGAGACCAGCCAGCCGCCAAC
 CTCAATGGCAGCAACGGCGGTCCGATCATGCTCAACGTGCCGGACATGTGCTTGTGCGACCACAACCTGGG
 GGGATACACAATGGGCCACGAGAGCCACCACTACGTGCCGCCACCGCAGCAACACGGGGTGATGTCCCCG
 ACAACAACAGCGTTCTGAATAACATCTTTGCCTCCGGACCGCAGTCGTTTCGAGGAGCTGGGGCCATAACAGC
 20 CACGCGGCGTGGTCCGGGACCGTCCACGACCCTCCCGTCGGACGTGGGATCCAACAGCTACGGCCATCTTTC
 CTATCAGTCCGACCAGCACCCGCGGCGACGCGCGAGCCCCATCAGTCTAACGGCTTCGAGGGCCTGATGG
 GGACGGATCTGATGGACAAGCTCGTGGGCAACATGCCGGGCGACCCTGGCTTGAATGGGGCAGGCCCCGAT
 CACGCCACATCCGCGTACCCTGAGAACAGCACGGTTGAGGCGGT

SEQ ID NO. 52

MATTDWQPDFVPPNPPALESVGAHTDRALQNTSGNVQSYSDNLAPNDTTGRDSGHLQPYAPKYPPPLPIPA
 HPVPSAAASLHHQHILANRWQKKLRRQLSLGPNQLVGPRRGRSYLKSQKYLEYRARPRRDTGKDGEVWS
 DELEDAFQQALEANPPMGRKWSERKSYGRNELIAEFIYKATGKRRTRKQVSSHLLQVLDLFLKGDPDWER
 LVREQPTDRSAAQPQAAGPRWRTSMEHPLSSHYNHLHAPYHDPLRPVQPYVGELPPPSFAPNPNVHDANIN
 30 TVQGLNFDWMVSAQNPDRIENAFHVYTRLQGDQRHPVAPSMPLNIVGWRTYFPYLNSLMADPTASLNCE
 IILLEANLELMDDFPPSGSRLGIQLELDFAHSAVGDAVPSQMDNWSCSTYMYEESQKILEVNHSLSKPAST
 KVKPPFESLWWAKLFTQLTQEKQMAEKAGQHHADEHTRHFFERTMSAVQEIATSPNSRRLSSHYGSSCD
 ESKRVAILLWKFRQTRPGEVGTWRRLLFPDPRTSTNSPRPATGIDLPLSLDLSILLNKPAPNVYQAPPP
 QPHELMHHHGASQPPWQMYPPPHDHMYPTGSFDLLNSISKPEDGLGDKTAVSSVIDPFPNMQQHETSQPPN
 35 LNSNGGPIMLNVPDMSLSHHNLGGYTMGHESHYVPPPQQHGVHVPDNNSVLNNIFASGPQSFEELGHNS
 HAAWSGPSTTLPSDVGSNSYGHLSYQSDQHPPATREPHQSNFEGLMGTDLMDKLVGNMPGDPGLNGAGPD
 HATSAYPENSTVEAV

SEQ ID NO. 53

ATGCCACCTCCCGTCGGCAGATATGCGCCATCTGGCTTAAACGCTCCATACAAACATACAAACAAGCTCACCT
 TCAATCTCAACATCCCGCACACGCACAGTCCGGAAACACACTCCCTCCCCCTTCGCTTGGTCATCCTGGTT
 TCGCGGGCAATCCGAATACCAACATCAACCCTTTTACACTATCCGGCGGAATTGCAAATGGTATGGCGGTA
 GCCGGCTTCCCGGGAGCTGGTGCAGGTGATGGCGGCGGCACCGGTCTGGCTAGTCATGCGGCACAGATGGG
 ATTCGCGCGCGGTGCGCAAATGCAACAACAGCAACTACACCAGGGTCACGACGGTTCGGTTAGCGCTCGAAG
 45 CAAAGGGCGGTGCAGTGAAGTCAAGAATTAGAGATGTCTGGAAGCACAACCTGGCCCATGAGATGGCGGTG
 CTGAGGCAGTTGGTCGACAAGTACCCTTACATCAGCATGGACACCGAGTTCCTTGGTATTGTTGCTCGGCC
 GATAGGGTCTTTTTCGAACAAAGCCGATTACCATTATCAGACCCTCCGATGCAATGTTGATCTTCTGAAGA
 TGATACAACTAGGCATCACGTTATTCAATGACGAAGGAGAGGTCCCCCAGCCTCAGGCACTGATGCCAAT
 GGACAAGCGTATGGTGTGCCCGCTCCCTGCACATGGCAGTTCAACTTCCGATTTTCACTTGAAGGCGACAT
 50 GTACGCCAGGAGTCAACAGCCATGCTTGCCAAATCTGGAATTGACTTCGCCATGCATGAAAAGAACGGCA
 TTGATCCTTTTGAATTCGGTGTCTTTTGATTAGCTCTGGATTGGTGCTACTGGATGACGTTCACTGGGTG
 TCTTTCCACTCCGGGTACGACTTTGGCTACTTGATGAAGATCATGCTCTGCTCCAGCTTCCAGAAAACGA
 AGAGGAGTTCCACAAGCTTCTTACCATCTTCTTCCCGTCACCTTACGACATCAAATACCTCATGAAGCACG
 CCGGTGCGCAACCAAGCCGTCAACGGTTCCTCTCAGTCAGGCTGCAGCCAGATTCTCACCATCTAGGC
 55 CAGAAATCTGGTTTGCAAGACATTGCCGATGAACTTGGCGTGAAGCGCGTCGGAATCGCTCACCAGGCTGG
 CTCAGACTCCCTAGTCACCGGCGAGATCTACTGGAAGACGCGCCAACCTCATTTTCGGAGGGGCAATTGACG
 ACAGCAAATATTCTGGCCAAATCTGGGGTCTCAACGGACAAATGCCTGCAGTGGCCTACAACATGGCTCAG

CAAACGCCCAACCTTAATGGCGCGACCATTTACTCGGGCGGCACCCCCAGCACTCCCAATACTGGGTCTCA
CGGGGCTGGCGCCACACACCTCAGCACTACGGAGCTGGCTACAATGCCCCGACTCCCGGAGCCTATCAAA
TGGGCCGGGTA

5 **SEQ ID NO. 54**

MPPPVGRYAPSGLNAPYNIQQAHLQSQHPAHAQSGNTLPPPSLGHPPGFAGNPNTNINPFTLSGGIANGMAV
AGFPGAGAGDGGGTGLASHAAQMGEFARGAQMQQQLHQHGDGRLALEAKGGAVKSRI RDVWKHNLAHEMAV
LRQLVDKYPYISMDTEFPGIVARPIGSFSNKADYHYQTLRCNVDLLKMIQLGITLFNDEGEVPPASGTDAN
GQAYGVPAPCTWQFNFRFSLEGDMYAQESTAMLA KSGIDFAMHEKNGIDPFEEFGALLISSGLVLLDDVHWV
10 SFHSGYDFGYLMKIMLCSQLPENEEEFHKLLTIFFPSLYDIKYLKMHAGRNQAVNGSPLSQAAAQILTNLG
QKSGLQDIADELGVKRVGIAHQAGSDSLVTGEIYWKTRQLIFGGAI DD SKYSGQIWGLNGQMPAVAYNMAQ
QTPNLNGATIYSGGTPSTPNTGSHGAGAHTPQHYGAGYNAPT PGAYQMGRV

SEQ ID NO. 55

15 ATGTTTGCTGCTGGTGGAAGCCCTCAATTTGCTTCGCCCATGTCTGGTACAACACATGGGTTCTGGGAAGG
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ATCCTCCAGGATATCACAACCCCGTCGGTGCACCTTATCAAAATGCTGCTGGGGTATTTCGCAAGCCCCACT
AGCACACACTACTCTGTATCTCGTGATGAGGGTACCTTAAGCGCGGCCGAGGCGGAGATGCGGAGGAGAAC
GTGGCACCCCTTCGTCATACACAGGGTTTCCACGCCCTGGAAGTAGTGGCCTGAACCAATATCATAACCCG
20 ACAATGTCCCAGCCTCATTCGGTGCGAACGGGTGCGACCGAGCATCCGCCCCGGCTTCCCGGCATTGAGAGT
TTTGACAAGGTTGTCCAACGGCCGATGACCCCGCCACCAGGAAAACCAGCCCAATGCAGCTTGATGGCCA
GCATCGTCCACCCCTAACCAGGCTTTGGATCAGGGTTCAATTATACACAGCCAGCCACCGTCCACCAC
CTCCCATCTCCGGCCCTGGTCACCGACGAGGCCATGTATCCTGGGATATGTCTTTGCATCATAACCTGACC
GGCCTCGATATCCGAGACCGACGTCCTTCTACCGCATCTGCTTCTCAATGGAGCCAACAAACCCTCGCAGA
25 ACTCCAGAATGTCTCTTCCCGCCCGTCATCATCTTACCAGCCTGCATTTCGGCCCAACGGCCGAGAGAAGCC
CTGAAGAGTATCGGGGACATCGCCCAAGCCTCTCAACGGGAAGCCGCACGCGAACTTCCCCCGAAGATTCTG
AGTAGCAGCGAGGGTGTCCATACCCCATCCACCGCATCGCTTGAGTATCATCCCGCGATTGTGCACAGCAG
CGGATATATCGAATCTGATGATTCTCCTTGCCTTCCGATCACCCCTCAACCGATCTGTGGCCGTCAGTCTT
CCCACGCGGATGGCTATGAACCCCACAATGACCGGGAGCCCAGGCCCGACGTCTTCCAGACTCTCCTGCC
30 CGAAATTCGGGCATGGGTGCGCTGGAGGCTCTTGTCGCCGTGCGCCACAAGCGAGAACAAGGAGCCGCCAA
GCTATTTCTG

SEQ ID NO. 56

MFAAGGSPQFASPMSTTHGFWEGKTAARRLSVPTSSNPFLAQHGNAYPPGYHNPVGAPYQNAAGVFASPT
35 STHYSVSRDEGTL SAAEAEMRRRTWHPSSYTGFPRPGTSGLNQYHTPDNVPASFGANGSTEHPRLPGIES
FDKVVQRPMTPPTRKTS PMQLDGQHRPPPNPGFGSGFNYTQPAHRPPPI SGPGHRRGHVSWDMSLHNL
GLDIRDRRPSTASASQWSQQT LAELQNVSSRPSSSYQPAFGPTAERSPEEYRGHRPSLSTGSRTRTSPEDS
SSSEGVHTPSTASLEYHPAIVHSSGYIESDDSSLPSDHPQPICGRQSSHADGYEPHNDREPRPDVFPDSPA
RNSGMGRLEALVAVATSENKGA AKLFL

SEQ ID NO. 57

AAGACGATGAGCGTGACGGTTTTGGGCGTGACCCACCATTGTTGGTCTCATACTACAGTGTGGAGGACGTGAT
GCGCGGCATCCTCAACCCACCCTCGATGGTGGATTCCCTACGCTTTATCCGACCCCGCACCGAACTCACCC
AGAAACAAAGCTTCCGTTCCCCGATCGACGAGCTCGAGGCCAACGCCGTGGAAAACCAGGAGCCCTCCAC
45 GCTGCTCTATACGGATATCGCCCGCAGATGATGGCCCTCCACGTACGCCATGCCAACCCTTCAAACGA
CTTCTACATGCACCCAGTCCCTACGCCGCCACACATCCCCCGCAGCAAGGCCCGATCCAGGGATACTCGA
TGGGCGCCCCGATGGCAGCCCAAACCGCGCCAAACCCATACCTGCCAAGCCCAGGCCAAACCGCCATCCCA
CCGAAGCAGGAAGACTACCACGCATTCCGCGCAGGGCCTTATGGCGGCAGCATGGACTCCATGAGCGCACA
CAGCATGGCCTCCATCCCGGGCAGCATCAACGCGGGGCTGTCCAGCTCACTCAACGAACGAAACAGATCCA
50 CCTCGGATCACAGCCCTTCCGCTTACCGCAATTCTTCCATCTCTTCGCGCAGCCAGGCCACTGACGCTACT
TCCCCCATGGATCCATCAACACCGGCCACCTACTCCCGCGGCAGCTTCAGCATGTCCGGTCAACTGGAGAA
CCCACATCCAGCACTCGATCGCAACATGCCTGGTCTGGATGCTAGCGTTTCGTCGCGAGTCAAATCCTATTC
ATCCGTCCTACTACACTGCGGATCGCTCCAGTACTATGTACCCGCGCCTTACGCTGCCACGCAACCTATG
TCGACATGGACGACTACGGCGGCGACGCAACCACAGATGGCGCAACCTCAAATCTAA

SEQ ID NO. 58

KTMSVTVLGVTHHLVSYYSVEDVMRGILNPPSMVDSLRFIRPRTELTQKQSFRSPIDELEANAVENQEP
AALYGYRPQMMAPTTYAMPTPSNDFYMHPSPYAATHPPQQGPIQGYSMGAPMAAQTA
PNPYLPSPGQTATP
PKQEDYHAFRAGPYGGSMDSMSAHSMASIPGSINAGLSSSLNERNRSTSDHSPSAYRNSSISSRSQATDAT
SPMDPSTPATYSRGSFMSGQLENPHPALDRNMPGLDASVRRESNPIHPSYYTADRSQYYVPAPYAATQPM
STWTTTAATQPQMAQPQI

SEQ ID NO. 59

ATGGCTCCAGGCAGTGGGCGCGACTTTAACTGCTCATGGGAGCATTGTGGAAAGTCTTTCAATCGCAAGTC
GGATCTCTGTGCGCCATTATCGCATCCATACCAATGAGCGCCCGTATCATTGCACCGTAAAGGACTGCAATA
AGAGCTTCATTTCAGCGGAGTGCCTTGACCGTACACTCGAGGACCCACACTGGCGAAAAGCCCCATGTTTGT
GACCATGAAGGCTGTCAGAAGGCATTCTCCGACTCATCGAGTCTAGCTCGCCATCGCCGAATCCACACCGG
GAAGCGGCCATACATATGCCACGAGCCTACATGCGAACGGAGTTTTTGTGCGCAAGACCACCCTCACCAAAC
ACCAACACCGCTCCCACCCTCCAGGGAGCTTGACCCGACCATCCTCAGAAGATGGGACCTCCGAGCATTCT
TACCACCAAACACCCGTATCAGTCTCGGTCCCGACTGAGCAGTACATGCTCGCCCAGCAACCTTTTTTACCC
GCAATCGGCGACACCAAGTCATGAGTTTTACTCGCCCCAAAGTGTGCCGATGGGCACCGTGCCGGTTCACG
AAGCTGCCCCCTCCGATCGTGGCCAGACTGTCCCCGGAACCTCGCCGGTAAACATGCCACACGCTCAACAG
CCGCAGCCGACCCGCAACACCACGCGCATCCACAACAGCAGCAGCAGCAGCAGCAGCAGCAGCATCAACA
ATACTTACAAATGATGCAACAGCGTTACGACAGTCCACGGGCGAACTACCTCCCAGAACAAATACCAACATC
CATCTTTTCAAGGCCACCAACTGCCTCCCGAACAGCCAATGATGGTTTCATACCACCCAAACTATGCGTAT
AAACCCCCCGGCTCCCGTCTCTTGAACCAAGCGGAGGGGACTGACTGGGGCTTTCTGGGAGTAGGC

SEQ ID NO. 60

MAPGSGRDFNCSWEHCGKSFNKSDLCRHYRIHTNERPYHCTVKDCNKSFIQRSALTVHSRHTHTGEKPHVC
DHEGCQKAFSDSSSLARHRIHTGKRPHYICHEPTCERSFCRKTTTLKHQHRSHPPGSLTRPSSSEDGTSEHS
YHQT PVS VSVPT EQYMLAQQPFYPQSATPSHEFYSPQSVPMGTVPVHEAAPPTVAQTVPGTSPVNMPHAQQ
PQPH PQHHAHPQOQOQOQOQOQOQYLQMMQORYDSPRANYLPEQYQHPSFQGHQLPPEQPMMVSYHPNYAY
KPPGSRLLNQAEGLTDWGFLGVG

SEQ ID NO. 61

ATGGATACCCATTTCGGATACCGACTTGAGTCATCCTCGAATGCGCGGAGCTATTGAACTGCCCCCGCTCCG
CGATCATTTCAAGCAGGAATCTCTTCCGCCGTTTACGCCTCGTCCTCGCGAGCTTCTTCCATCCATCCTCA
ATCACTCCCCGCCCGGTGCTCATCCACATTGCCGCCAATCCAGCGGAGAGACAAATTTTCCCGCCCCGCGC
AAATCTTCCATCACTCAATCTGCGCGGAAATCCAGGCAGGATCGCCCTAAATCAAAGGAATTCGGGCGGGC
ACCAAGTCTCGGTGACCGCAAAGCCCTTTCCGGCAGAGCCGCAAACCGCGGCCTGGGCGCAAGGCAAGCGCT
GGGAGGATCTGATTGAAGCCGCGACATCAGCAACCGAAGTAGACGATGAGCCGTATTCAGAGGCTGGTCGG
TCTCCAACGATTGCCCCACTACTTTCCAACGTGACGTCTGCCCCCTCTGGGGTGAAAAATCGGTCTCTCGCT
ACCACCCGCTTTCCAATCCTCGGGATTGCCTCCTATCTCTTCACATCGGCCATTCCCACCTCATTCATACG
CCGCCTCGCCTTTGCACAAGTCATTGACCCACCACCATAACGAGAACCACCGCAGCCGTGAGAGCGACTTG
GAACCATTCCCGTCTATTGAATCATCGCTCGATTCCATGTCTTCGGCATCCGGCAGAAATTTTGCGTCATC
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AGCGCCAGCACACCGATTCTCCAATCCTACTCCAGCGTCTTTCCGCAACAAAGAGGTTTCAGGTGTTTTGT
GCTCAGTGCAAACGACCTTCGGCACTGAATGAGTGCTATGCCTGTACGGAGTGATCTGTGGAGTCTGCCG
CGACTGCGTGAGCATGTTCAATTTCAAGTCCGCCTACTTCATTCCGAACCCAGGGAACGGGTCGTTAAATA
CCGTCTGTGACAAGGACCAACAAGTTACCCTGGTCCTCAAGGGTGTCCACGATGTGCAACAGTTGGAGGC
AAATGGAAGGCATTCCAAATCGACATCAAG

SEQ ID NO. 62

MDTHSDTDLSHPRMRGAIELPPLRDHFKQESLPPFTPRPRELLPSILNHSPGRSSTLPPIQRRDKFSRPR
KSSITQSARKSRQDRPKSKEFGRRPSLGDRKALSAEPQTAAWAQGKRWEDLIEAATSATEVDDEPYSEAGR
SPTIAPLLSNVTSAPSGVKNRSSLPPAFQSSGLPPISSHRPFPPhSYAASPLHKSLLTPPPYENHRSRES
DL
EPFPSIESSLDSMSSASGRNFASSVSGVAPSINS DSSPVMNLIPPI SQRQHHRFSNPTPASFRNKEVQVFC
AQCKRPSALNECYACTECICGVCRDCVSMFISSPPTSFRTPGNGSLNTVLSQGPTSYPGPQGCPRC
RTVGG
KWKA FQIDIK

SEQ ID NO. 63

ACGAAAGCCGTCGCTTTTCAAAGCACCCGGACCTATCTATACCTCAACCGGGTTTATTGTCATGCGATCCC
ATGGATTTAGCACAGCCGTCCTTTGTGGAACCTCCAAATGTGTTTCATGGATTTCCCATCAGGAAAATACC
AAACTCGATACCGCCTCAGCCAAAGCAGTTATGTCTGCCGGAACCAACACCGAGTTCTCTTGATTTCA
GTCTGTTTTTTAAGGTGATCGAGACAGTCAGCGCACAGACCTTGGCTTTCGTGCGGTATCACTCCGCAATG
5 AGTCAGTCAGACAACCATCAAAGATCCCTCCCTGGACTATCTATCACTGAGATAAATGGCCTCCTCAGTCA
GGAGCAGCAAAAGCAGGATGTCTTGATTTATATTAGGGATGAACTTGTGCGCTTCGACCAATACCAAGCCT
TAGCGCAGCAGAATACTCGGGCAGCCGCATGTATGGCGGGTGGGGCTGACCGAGGTCTTTGTTTCATCAGTC
ACTAAACAGAGCAAGACCCATAAAGTCTCTAAACAAAAAAGAGAATGGCACGGGGATAGTGCTCTTCGTTG
TCATAGCTGCAACCGTTCTGAAACACCAGAATGGCGTCGTGGTCCGGACGGCCCCCGAACTCTTTGTAACG
10 CCTGTGGTTTACATTATGCAAAATTGTCTCGACGAACGGGCAAATTTGTGGCGTTGGACGATATTGGCATC
AGGGGCAAAACA

SEQ ID NO. 68

MVLLKKHLKDVNREDQRQMPRQRLPSIQEIFGETFLAIPSNPSYALPSHTRHAAPPALPAVYEIAHSIEGA
15 PSNEQGLLPKISTVERSLGIISPVNELQHPEVIRPENPSFSPNGCSLNESRRFSKHPDLSIPQPGLLSCDP
MDLAQPSFVEPPNVFHFPIRKIPNSIPPQPKQLCLPEKRTPSSLDFSLFFKVIETVSAQTLAFVRYHSAM
SQSDNHQRSPLGLSITEINGLLSQEQQKQDVLIYIRDELVRFDQYQALAQQNTRAAACMAGGADRGLCSSV
TKQSKTHKVSQKREWHGDSALRCHSCNRSETPEWRRGPDGPRTLACGLHYAKLSRRTGKFVALDDIGI
RGKT

SEQ ID NO. 69

ATGTCCGGCTACGACCAGTACAACCAGGGTGGCTACGGCCAGCAAGGTTATGGCCAGCAAGGTTACGGCCA
GCCAGGTTACGGCCAGCCAGGTTACGGTGGTCAACCAGGTTACGGTGGCCAGGGTCACGACCAACAGCAAC
AGTACGGTCAGCCCCAACATGGCTACGGCCAGCAAGGCTACGGCCAGCAGGGTGGTTCTTCCGACTACTAC
25 GCCGGCCAGCAACACCAGCAGCAGGGTACGGCCAGCAGCAGGGTGGCTCTTCCGACTACTACGCTGGCCA
GCAACACCAGCAGCATGGCTACGGCCAGCACGACCAGAACCGTCAGGGTGGCTACGAGCAGCAGCAGCATG
GTGCCCCCGATGAGGCCCAGGATGGCGAGCGTGGTATTGCTGGTGGCCTCGCAGGTGGTGCCGCCGGTGGC
TTCGCTGGCCACAAGGTCAACCACGGTTTCCTTGAACAATCGGCGGAGCCATCATCGGTAGCATCGCTGA
AGACGCCGTCAAGAAGCACCGCAACTCCGACAACCAGTCTCCTCCTCAGTACGGTGGCCCCCCTCCTTCCA
30 ACAGCGGCAGCGGTGGCTCCATGATGGATCAGCTCGGTGGCTTCTTCAAGAAG

SEQ ID NO. 70

MSGYDQYNQGGYGQQGYGQQGYGQPGYGQPGYGGQPGYGGQGHDOQQQYQGPQHGYGQQGYGQQGGSSDYY
AGQQHQQQGYGQQQGGSSDYYAGQQHQQHGYGQHDQNRQGGYEQQQHGHAPDEAQDGERGIAGALAGGAAGG
35 FAGHKVNHGFLGTIGGAIIGSIAEDAVKKHRNSDNQSPQYGGPPPSNSGSGGSMMDQLGGFFKK

SEQ ID NO. 71

ATGCTGCACCTGGTTGCAATTACCTCCCCGACCCGGAGTTCAATTCAGATGCCCGAGAATTCTTCACTCG
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40 TAAGACTGGCTTTCTCCGCCGATATGCAGCGTCTTTTCGAGTTGAAGCCCAGTTTCCCATACGGCAGTCCC
TCGGAACCCTACCATCCCAGTCCACCTATGGATGCGCACTACCATCCGCACTTGAATCAAATCCAATCCAG
AGTGCGTTACAACCCGCTCCCGGCAACCCCTCCGATTTCGGCTGGTGTGAAGATTTCGAAGTCCGACACAT
CTTCCCAGATACAATCCCTCGGGATGGTTGCCCATCAGCCTTCAACAACCTCATCCTCTAGATGCCCTTCG
GTCGATGAAAATCACTGGGACCCGACCCGAATCATCACTCAATGGGACATGGCCTTCTCCGTGAACCCTTC
45 TACCGTCAGCACAACTCCCCACCAATGCCTATAAACAATTAGTACCGAGTGTAACAAACGTTATGAACC
CCCAATACCCTATCCAATACGAGACACCCAACAAAGTGCCCTCTGTACATCTACCCACTCTCTCTCGCCT
TCGCAGTTCCAGACACCTCCAGTTGTGTTTTTCAGCACGAGACTGGCAGCAAAGTGTTGCCAGTGTGTATGA
TCCACAAGGGCTGAAACGGCGATGGAATTATCCAGTTGATGCTAGCTCCGACAATAATATGTCCAAGCGCC
AAAGAGGA

SEQ ID NO. 72

MLHLVAITSPDPEFNSDAREFFTRHMRILETCSAAWPMPEIQAQIDSLRLAFSADMQRPFELKPSFPYGSP
SEPYHPSPPMDAHYHPLNLQIQSRVRYNPLPATPPIISAGAEDSKSDTSSQIQSLGMVAHQPSSTTHPLDAPS
VDENHWDPTRIITQWDMAFSVNPSTVSTNSPMPINNSVPSVQNVMPQYPIQYETPNKVPSVTSTHSLSP
55 SQFQTPPVVFSARDWQQSVASVYDPQGLKRRWNPVDASSDNNMSKRQRG

SEQ ID NO. 73

ATGGAGCCCAACGAACCTTTCCTTCCTGCTCAAGATGGTCCAGCGAACCTCACAAGAGGGGCCAGCCCCGGGC
AAACGGCATCAGCGATGTCGCAACCCCGTATATAGGCTCCGCACCCGAGCACATCATGTCGTTTCGATATCA
AGGATGTCGTCGACATTGCCGTTCCAAACGTTACCACAGCTGAAGTTTCAGCCAAGGAACCAAACGGTGCT
TCCCAGGGTTTCAGGACAGACAGTGATATCTCCGGAAACCTAGCCATGCGAGAACGCACCTTGCAGCGCTG
5 GGAACCGGCTGAGACTGACATTGATATGTCACTCGAAACGAGCAATACTTCTGCGGGATGGGATCAGTTTG
AGGCAAACGAGCGTCTTTTTCGGCGCCAAGACCAACTACGATGAGAACATCTACACCACTCGCCTGGACCGT
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GGACAACCTCCCACATGCGCGAGGAGCGTGCCCTTGTAGCACCCGATACCGGTGACCAAGACGAAGAAGACA
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10 CCCCCCGGACGCCGACAGGCAGCCCCACAGTCTACTGCGACTCCCAGTGCATCCACCAAACAGCCTGTTGC
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CGTGGAGGTGGAGGTGCTTGATCACTTCCGGCAGTTCGCAAATAGCGAGAAAATCAAGATGCAGGAGCGCC
15 GTCGCAACCAGGCCTCGTATGACCGGACCATGAAACTCAATGAGCTGATGAAGTTTCCAAGAGCTTCAAA
CTCTCCACTCCGGTGCCGAAAGATCTTGTTCCTATCCTAGCCAAGGACCGACTAAAGCAAGAAGCAATCAT
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CGCACTCGTCAGGGTTATCCTCCAGCTGGTCCGCTCGCTGGTGGTGGCAGATTCCCTCAGCAAGTTCC
20 ACCGGGACGTCTTGGTGTGGCATGCTCAGTCACCGACTAGCGGACAATCTGCAGCAACGAAAGGGCGCGG
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CAGCAGAGAATCACCAGCCCTGTCAAGTCGCAGGCCGGGTCTTCTGCGGCAACCAAGTTTAATGTTAAAGC
TATGGAGTTCAAGCCAAACCCCGCAGCGAGCACTTTCACCCCTGGTACCTCGGGAACTGCCGCAAGCCCAC
GGCCTTTCTCTCGCAACCGCTCCGTGTACGCGCCACAACCCCGACTGCGTTCTTTGGCTCAAGGAAGCCA
25 CTGCCTGTCTCCGAACGACCCTCGATCAGTGACCAATTCAATCCCATCAAGCGCATGAAGAAGGAGCACGC
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30 CCCATGGCCCCCTCCCATGTGGATGATCATCACCGCATGCAGTTATCCGCGTCGAACTCCCAGGTTTTCCCG
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CCCGCAGTTTTTACGGCGGGCCCCAACCTGGCCATATCAGACCTTTCAGGGTGGTGGTCCCTCAGTTTGTGA
ATGGCGCTCCTATGATGGTGCAGCAGGCCTCGAATGGACCCTACATGGGAGTCCCGCAAGGCATGTCTCCC
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35 TAGTGGGTACCCAAGCCCGAGCCGTGGTGGCGCCATGATGATGCACCAGAACTCGCAATCTGGACAGCCTC
CTCAATCAATGATGTTTATGCCCCGCCAACCCGGTTACCCTCAGCAGTCGGGACACATGCCTCCCAACCGT
GGCAACTACCCACAGCAGCCTCACTTTTCCTCAAGTCCCCATCAATCGCATCATTTCCACCTAACCAGCA
TCGGACACCCAGCAACGGTTTCAACCAAATGCCTCAAATGCCACCCAGATGCCTGCCGCTACCCAGCAA
CAACCCCTGGAGCTTCTACCCCGGCCGAGGCAACGGATGAAGGAAAA

SEQ ID NO. 74

MEPNELSFLMKVQRTSQEGQPRANGISDVATPYIGSAPEHIMSFDIKDVVDIAVPNVTTAEVSAKEPNGA
SQGFRTDSDISGNLAMRERTLQRWEPAETDIDMSLETSENTSAGWDQFEANERLFGAKTNYDENIYTTRLDR
SDPNYKQKQAEAAARIAREIEGQDQVDNSHMREERGLVAPDTGDQDEEDKYSQVRRREDKAFPPLLSGQPNKYM
45 PPGRRQAAPQSTATPSASTKQPVAPVPTAPIPIPSQAVAKETTPADQQTELVASLQPTTDTEQKSALGKGV
TPPVSTASPAPAGKRTAPENATANVEVEVLDFRQFANSEKIKMQERRRNQASYDRMTKLNELMKFSKFSK
LSTPVPKDLVPILAKDRLKQEAIMQALQQGDDKATPKVTTTPTEQQPPTRGAGPSGAVPPSAPADRQNYN
RTRQGYPPAGPLAGAGGRFPQQVPPGRPGVGMLSHRLADNLQQRKGAGMGPVPTPLPIQDARGPPTGPASD
QQRITSPVKSQAGSSAATKFNVKAMEFKPNPAASTFTPGTSGTAASPRPFSRNRSVSRATTPTAFFGSRKP
50 LPVSEPSISDQFNPIKRMKKEHAETAERLIMLNGGIPPPYKTLPTWDIADGSEEKTYDEMFKQPVAVPTV
PPQGRSVSNNTNIPQQHQVPFHFQQGNPAMPSSGSPNGPHGLHSQGPBGPSHVDDHHRMQLSASNSQVFP
SPRMQHGYPSPMAPHAQLSFPQPVPQFYGGPQPGHIRPFQGGGPQFVNGAPMMVQQASNGPYMGVPQGMSP
YNAQMPMYSNPNGHAYPOHTPQPHSGYPSPSRGAPMMMHQNSQSGQPPQSMFMFPGQPGYPQQSGHMPPNR
GNYPQQPHFSSSPHQSHHFPPNQHRTPSNGFNQMPQMPMPQMPAATPATTPGASHPAEATDEGK

SEQ ID NO. 75

ATGGGTTTTGCTCAGAAAATCGCCGCAGCTCAGAATAGCCAGAACATGGCTAACAGTGGTTCATATGGAGG
TGCACCTCCGTCAGGATACACTGGGGGTCTCTGCCGCTCTGCAGCCTGGTGGATCGAGCCAACAGCCCC
AATACCAGGCTTATTCAGGATCCCCAGCCCCCAGGGATCGGCACCACCCTACCCTACCCAGGGTTCCCCG
TACCCCGGTGGCCAGGGCCGTCTGGTCCCTCACCAGGACCACCAAGCGGACCGCCGCCAGGCCAATATGG
5 CGCACCCGGTGGCGCCCCCTCCCTCCGCATCTCCCCCGGCCACTCAGCAACAGGTTCGCAGCCTACCGATCGC
TTTTGATTTCCGCGATTTCAGGAGAAGAACCTCCAAAGCTTCTACCCTCCCGAGCGACTGGACCGACTCGTT
CAGTCGCTTGCCGCTGAAGCACCAGGCAAGCTCAATAGGCTGATTTCATGAATGGGCCGTGCCTATGGAGGT
TGCGACCGATGTCATGAAGCTTTCGCTGTTTGACGTGGTCTCTATGTTGATGACAGTGGATCTATCGAAT
TCGAAGAGAAGGGACTCCGAAAGGACCAGCTCAAACAAATTCTCGGCATCGTAGCTACTGCCGCATCTACC
10 TTTGACCAGGATGGTATTTCTGTCCGATTTCATGAACTCCAGCGAGAAGGGCGATGGCATCCGCAATGCAGA
GGATGTCGAGCGCCTAGTGTCCCGAGTCCGTTTTTCAGGCCTGACCCCTCTGGGCACCAGTCTGAGGAGCA
AAGTCATCGACCCCATGGTTGTTCAACCCGCCAGGCCAACCGTCTCGACAAGCCCGTTCTGGTGATCACC
ATCACCGACGGACAGCCTGCTGGCGAGCCTCATGGTACCGTGGGTGATGTCATTTCGCTACGCAGTGGAGGA
GACGTCACGGACCCGTTATGGCCCCGGCACCAGTAGCCTTCAGTTCTCGCAGGTGGGAAGTATCAGCGGG
15 CTCGCGACTTCTTGGGCTCTCTGGATGAGGACCCCTCATATCGGCCATCTGATCGACTGTACTTCCAACTTT
GAGGTTGAGCAGGATGAGATGTCGCGTGCTAACCCACCCGTGCATCTCACTCGCGAGCTTTGGTGCCCCAA
ACTGATGCTCGGCGCTATCGATTCTTCTTACGACACCAAGGATGAGCGAGAGAATCAACGTCGTGGTGAC
CCCCACCAACAGGCCAGTACGGAGGAGGTACGGCCAACCTCCGCCACCCAGGGCCAAGCTCAGCCTCCG
TATGGTCCGCCCCCTGGTGCCCCACCGGCTTCGTACGGTTCTCAGCCAGGCTACCCACCGCAGGGCCAATA
20 CCAACAGCCTCCCCAGCAGCCTCCCTACCAGGGATCGCGGGGTGGGTATGGCCAACAGCAGCCACATGGGT
ATGGATCCCCTGGACCTGGCTACCAGTATGGTGGACAGCCGCCACGCTAT

SEQ ID NO. 76

MGFAQKIAAAQNSQNMANSYGGAPPSGYTGGPPAALQPGGSSQQPQYQAYSQSPAPQGSAPPYPTQGS
25 YPGGQGRPGPSPGPPSGPPPGQYAGPGAPPSASPPATQQQVAAYRSLISAIQEKNLQSFYPPERLDRLV
QSLAAEAPGKLNRLIHEWAVPMEVATDVMKLSLFDVVLVDDSGSIEFEKGLRKDQLKQILGIVATAAST
FDQDGISVRFMNSSEKGDGIRNAEDVERLVSRRVFSGLTPLGTSLSKVIDPMVVQPAQANRLDKPVLVIT
ITDGQPAGEPHGTVDVIRYAVEETSRTTRYGPGTVAFQFSQVGTQDQARDFLGLSLDEDPHIGHLIDCTSNF
EVEQDEMSRANPPVHLTRELWCPKMLGAISSYDTKDERENQRRGAPPPTGQYGGGYGQPPPPQQAQPP
30 YGPPPGAPPASYGSQPGYPPQGQYQPPQPPPYQGSRGYGGYQPPHGYGSPGPGYQYGGQPPRY

SEQ ID NO. 77

ATGCAAAGCCCCCAGCAGCCACCCGACTTTCTACTGTACCCGACTCAGTCCACGCGTGGGAGCAAAATGAT
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35 ACCCTTTCGCATTCAGGTGGACACCTTCGCTAGCTTCGGACAGCCCGCCAGTTCTCTCGAGGCCCCCAG
ACTTCATATTATGATACCCCTCCGCTCTACACGGATTCTTACTCCGACTCCAATAAGACCGCCCCCTGGGTT
TCCTTCCATGCCGGGTACGCCCCCGACGCTTCCCTCCACCCAGCCGCTGGACTCCCACGTTCCGGGCCTGA
CCGCCCCGTCGGGTCCGTCTGTGCCAGCGCCTCCTCCTCGGCCATTGGGTGCGCGTACTCCGGCACGGCC
CATGCCAACCAGGAGAACTGGGTGATACGAACCACGGCCTGGGCCTTCCCGCCGCGGTGATGGGGGATCT
40 GTTTCGAACGACTACACGGGGACGACCCTGGACCCCGATTACTTTGCCAATAAAGGCGCGGACAGCTTTG
TTGACCCTTCTTTGATCCCGCTTCAGCAGCAGTCGAATCTGTCGACCCCGGCCATCTCCTACCCGGAACAG
ACTGATTATAGCCTGGTCCCCGGCGGATTCTTCCCTCAGTCCCCTGACCCTTCCCAATTCCAATTTGCGGA
CCCCTATGGTCCATTCACACAGCAGCCATGCCCCATGCCCCGCTCATCCCCATCTCTGATGCCCTCCCATG
TCCCGCCCCGTCGTCTCTCCCTCTACGACCGTCGGTCTCTCCGTGTCAGTCCCGTCGCTCGCAG
45 CTGAGCCCCGGCGGCCAGCAACGCCGAGATCGAGGAGGACGCCAAGGAAAAGGGCCGATGCCCTCATCCGGA
TTGCGGTTCGAGTCTTCCGGGACCTGAAAGCGCACATGCTGACGCATCAGTCGGAGCGTCCGGAGAAATGCC
CCATTGTCACTTGCAGTACCACACCAAGGGGTTTGCCCGCAAGTACGACAAGAACCGCCACACCCTGACC
CACTACAAGGGAACGATGGTTTGCGGCTTCTGCCCCGGGATCCGGGTGCGCGGCCGAGAAGAGCTTCAACCG
GGCGGATGTGTTCAAACGTCATCTGACCTCTGTGCACGGTGTGGAACAGACCCCTCCCAACTGCCGGAAGA
50 GAAGCCCC

SEQ ID NO. 78

MQSPQQPPDFLLYPTQSTRGSKMIALDSSRQQQT PFFQNFTMDPAFTDPFAFQVDTFASF
55 GQPASSSRGPQTSYYDTPPLYTDSYSDSNKTAPGFPSMPGTPPTLPSTQPLDSHVPGLTA
PSGPSVASASSSAIGSPYSHTAHANQENWVDNTHGLGLPAAVMGDLFPNDYTGTTLDPDY

FANKGADSFVDPSLIPLQQQSNLSTPAISYPEQTDYSLVPGGFFPQSPDPSQFQFADPYG
PFTQQPCPMPPASSPSLMPSHVPPRRLSLYDRRSSVSSVQSRRSQLSPAASNAEIEE
KGRCPHPDCGRVFRDLKAHMLTHQSERPEKCPIVTCEYHTKGFARKYDKNRHTLTHYKGT
MVCGFPCPGSGSPAEEKSFNRADVFKRHLTSVHGVEQTPPNCRKRSP

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SEQ ID NO. 79

ATGGAGACGTACTACGGCCATGTCCGCACTCCTGCGGACGCCATCATCCTCTTCGAGGCCTGTCGCATTGG
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TCTGGGATGAGCGAGAAGCCGGCATGCGCCGCTGGACGGACGGCAAGTCCTGGAGCGCCAGTCGCGTGTCT
GGCAGCTTTCTCACGTATCGCGAGATGGAAGGCAAGCGAGGAGGCACCGGAGTATCGCAGAGCACCATTCC
GCGAGCCGGGAAAACCTCCCGAGAGCACCCGCGGCAGTGACGACGACCGCGGCGATGGCGCAGACGAAGGCC
CCGATGGCTACCGATATAAGCCCGACGGCTTGATGAAGCAGTCCTTCAGTATCACACCTCCGCCGGCCAA
CACCTCCATCTCATCAGCTACTACTCGCGCTCCCATCCGTCCGCGGCCAACCTGCAACAGCCCACCAACGA
TCCCACCCTGCGCCATGTTTCGACCCCGAGAAAGGCTCTATCCCGAATCCACGGTCAACGACCAGCAGAACC
TGCCCGTCGTGACTCGCGGCCCCATGGGCGGTGCTTACTCCGTCCACCACCCCATGCCTCCCTACGCTCGC
TCCGGCGCCACGCATCCGCAATCATACACTCCGCCCTATGCCTGGCCCCCGACGCCGCTGGCCACCCCGCC
CGTCACCGTCCATTACTCGCCATACCTCCCGCCGGTGTGCGGGCGCCAACGGCCAACTCTACGCTCATCATC
ATCAACCCCCCGCACGCCGGGCTGCCGCCCCCGCCCCCGCCGACGCCAGGCCTGTCCGCCGCTACGAACGC
CCCGTGACCCCTATCGAGAGCGCTATCGCGCCGCCCCGCCATCCATGCCTCCGGCGTCCACCATCCTGCGCT
CCCTGTGATCGCCGGCCGCTCCCCGCGTCTCGTCGCCGACGCCACGACGTCCACCAGCGCAGCCCGCCCG
CCTACGCGGCCACCGACCCCGCGCGCTCTCCGCGCACCCAACCGCCCCCATCCCCGCAACAAACGGC
TACGGCCCCGGCCGACGCAGCCAGCCACGCTGACCCAGCCGCGCCGCCACCGCCGCGCCGCGCCGAGCA
GCAGCAGCCTCCATCGACATCGGCTCAAATCCCGCCGCCCAAGCTCGCCGAACCTCCACCACGGGGACCA
CGGTACCCAGCATCGGGGCCCTGATGAACGGCGCCGAGCCGGCGGGCGGCTGCCCTCCATCACGGCCACG
GCAGCGTCGACCGGCCGCGCCGACGGGCCCGCGATATCCCCAGCGAGAAGATCGGGTTCGGCGGGCAGGA
TATGCGCGCGCTCCGACAATTGGACCGCGTGTTACGGCG

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SEQ ID NO. 80

METYYGHVTRPADAIILFEACRIGLLPRVQRRLESEKERQLIRSGSVFVWDEREAGMRRWTDGKSWASRV
GSFLTYREMEGKRGGTGVSQSTIPRAGKTPESTRGSDDDRGDGADEGPDGYRYKPDGLMKQSFSITTSAGQ
HLHLISYYSRSHPSAANLQQPTNDPTLRHVRPQKGLYPESTVNDQQLNPVTRGPMGGAYSVHHPMPYPAR
SGATHPQSYTPPYAWPPTPLATPPVTVHYSPYLPVSGANGQLYAHHHQPPHAGLPPPPPPQPLSAAYER
PVHPIESAIAPPPIHAGSVHHPALPVIAGRSPLVADAHVDVHQRSPPAYAATDPRRASPRTPPPPIPATNG
YGPAARSPATLTQPPPPPPPPPPQQQPPSTSAQIPPPKLAEPSTTGTTVPSIGALMNGAAAGGGLPSITAT
AASTGRADGPRDIPSEKIGFGGEDMRALRQLDRVFTA

35

SEQ ID NO. 81

ATGTCGTCGCCCAAGGATTCCCAGTACGACACAACCCTTCGGCGCCATCCCCGCCGGAGGGCTGCTTTGTC
CACTTCTCCTCCATCTTTACTTAATTCTTCCAACGTGTCGATCTGTGACTCGAACCCCTCAAACCCGCTGT
TCAGAAAGAGCGAAACCTTTTCATGCAGCGAGAAACCGTCCCACCCACGCGATCCTCGTCTCAGCTTGCCT
CTTGACCCCGCCGCTCTCCTACATCTCCCGCTGCCCTCGAAGCCATCGCGGCCGGCAGAGAGCGCATGAG
CAAGATCCTCGATAACCTCGACCTCGATACTTCACTCCCTCGGAATCCGTTGATGAGGAACTCCCCGTGC
CCCGCAGTGTCTTGCAACTTCATTTGACTCTTTGCATATCTCGGACCCTCCCCAGAGTCCGTCCGTCCGT
TCAGCTCCCAAGAAGCCGCTCCAAAGAGTCAACCATCACACTTCCGACAGCGGTCTCGGGACCTCTGTTTG
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TTCGGAAATTGTGCGCTGACGGGGTGCACAAGATAGAGCACCGTGTCTTCTACCCTCTTCTTATGAACACG
CAGTTCGATAAGTTCCACAGCACTGTTTCGATATGCCGCTCAAGGGGTCAAGGACAATCGATTCCGCTGTCT
CCGTGACGTGGAAAATTTATTCGCAATCCATTCCCTATTGACCATGTTAATGAGAAGGAGGAATTTTCTC
TTTTCTGAATCAGGTGGTCTGTGCTCGACGACACTTGGCACCGCCTCGATGAATCGGACCGCACTATG
CCTGGTGATGTCCCGTACTCGAATGAGTACATCCTCGACCTTTACGATCAAATCGTCCGCTTCAAGGCGCT
CTGTGAGCGAGCGAAACAGACTCTCTCGCAGACGGATAGCAACAGTGCCACCCCAAGTTGCCCAAGCTCG
TGTTCAAAGGCGGCTTGGCCAAAACAGGACGCCAGGCGGAAGTGGTCGCTCAGTCCGATGACCAGATGATG
TCGCTCCGCACGGGTAAACCCTACCAGGAGAGCCAGGTGCCGAGCATGAAGCGTGGCCTCAGCCTATGCTC
GACGGATGGAGAGGGCGCCACCGATGCATGGCCCCGCCGCGGAAGAACGAGGCTCCCATGAACATCAACA

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CTCCGTGCGACTTTTTCGCGGGCAAATTTTCGCGGAGACCCTGTGACCTCACTAAACACATGAAGACCCACACA
CGCCCGTTCAAGTGTTTCGGTGCCTGAGTGCAAGTACTACACCTATGGATTCCCGACTGAAAAGGAGAAAGA
CCGTCAATTTCAACGACAAGCACAACCCCGACCCGGAACCGTACGAATGCGATCTGGGAGGATGCAATTATC
GCTCTAAGCGGTTGAGTAATTTGAAGCAGCATAAGGAGAAGAAGCACGGCTGGCAATACGTCCGGACCAAG
5 AGCAACGGCAAGCGCAAGGAGAAGGGCAAGGGCAAGAAAGCCAGTCCTCAGTCTACTCCGGATACTCCCGG
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CGCAGGCAGTCTCCCGACCTCTGCCGACTACCGACTTCAACTTTGCTGATCCTCCGTTGCCACCCCGGTT
GCGGACTTCCAAGTGTCAACGCGAACAGCCCCATGGGAGGGAACGGAAGCGTGAACATGGGTATGCGGA
TTTGGGCTTTCCGGAAATGACTCGGTCAATGGACGGCGACGTGGTTCATATGAACAACTTTGAAGACATGT
10 TCGCCAACGTCAACAACCCTTACCTGGATGGACTCAGCGGGGGTTATCAAGTCCCCAGCGGCTATGAAGCC
GGCAACATTGACTTTCCGGATCTGGGTATGGCACGGCCGTGCCTCCGTCTGCGGTCTTCCACGAAGACCA
ATTCCTGCCGGAGACGATCAACTGGGAAGAATTCGCCATGCTTAACGGAATGGATACGATGTCCAAG

15 **SEQ ID NO. 82**

MSSPKDSQYDTTLRRHPRRRAALSTSPPSLLNSSNCRSVDSNPSNPLFRKSETFHAARNRPTPRDPRLSLP
LAPRRSPTSPAALAEIAAGRERMSKILDTLDLDTFTPSESVDEELPVPRSVLQLHFDSLHISDPPQSPSVR
SAPKKPLQRVNHHTSDSGLGTSVCSEALSCTESADLDSNAPMSASHLRKLSPDGVDKIEHRVFYPLLMNT
QFDKFHSTVRYAAQGVKDNFRCLRDVENLFRNPFPIDHVNEKEEFSLFLNQVVLCLDDTWHRLDESDRTM
20 PGDVPYSNEYILDLYDQIVRFKALCERAKQTLSTQDSNSATPKLPKLVFKGGLAKTGRQAEQVQSDQMM
SLRTGKPYQESQVPSMKRGLSLCSTDGEGAHRCMARRRKNEAPMNINTPCDFCGQIFARPCDLTKHMKHT
RPFKCSVPECKYYTYGFPTEKEKDRHFNDKHNPDPEPYECDLGGCNYSKRLSNLKQHKEKKHGWQYVRTK
SNGKRKEKGKGGKASPQSTPDTPLTTPGTSTAQSSTPNTGSPSPPPQAVSRPLPTTDFNFADPPLPTPV
25 ADFQLFNANSPMGGNGSVNMGYADLGFPEMTRSMGDVVMNMFEDMFANVNNPYLDGLSGGYQVPSGYEA
GNIDFPDLGYGTAVPPSAVFHEDQFLPETINWEEFAMLNMGMDTMSK

30 **SEQ ID NO. 83**

ATGGTCAACACCCACCCGATCAACGGCCCCAGCTCTCCCCGTCCAACCCCAATCCCCCGTCTCGACGACG
CAATGATCGCGACATCTACGTGCGCGATGCCAGTGAGCCCGCCACCCCGCGCCCCATGGACGATACCCACC
CCGCCGCCGCCACCGCCGCCGTTGCCCTGGCCCAATTACACCACAATCGCTTGGTCTCCGACTGGGAGACG
GACATGGAATCCCACTCCGACAATGACATCAGCCGCGACCGCATGCGATCCTCCATCGAGCTCCCCTCTCT
GCGCGACCACTTCAAGCAGGACTCCCTCCCACCCTTCTCCCCGCGACCGCGCGAAGTGGCCGCGCCCGCGC
35 TCAACCACTCGCCCCCAGGTGCTCCTCCACTCTTCCCCCATCCAGCAAAAGAAGTGGCCGCGCCCGCGC
AAATCCTCCATCTCCGGCGCTCGCAAGCCCAAACATGAACGCTCCAAGTCCAAGGAGTACGGTCGCCGCCC
CAGCTTAGGCGATCGAAAGCCCTGTCCGCCGAACCCAGACCGCCGCTGGGCTCAGGGCAAGCGCTGGG
AGGATCTGATCGAAGCCGCGACTTCGGCGACCGAGGCCGACGACGAACGCCATTCTGAGGTGGTTCGGTTCG
CCCACCATCCCTCCGGTGTCCAGCTTCACCTCCGCCCCCATGGGGAAGAATCGCTCGTTCGCTTCCCCCGGG
40 ATCCAAGGACTACCACCCCCACCTCGCATCGTCCGTTCCCGCCTCATCCCTACGCCGCGTCCGGAAAGACC
CTCCACTATAATCACGTGGTCCGGCCAACGACTCCAGTCCGGTGTGAACATGTTCCCGTCGTCCGGCCGT
GCAGCGCCAACACCATCGCTTTTCCAACCCCAACCCCGCCTCCATGCGGAGCCGCGAGATCCAGATCTATT
GCGCCCACTGCAAGCGACCGTGGGCGCTCAACGAATGCTACGCCTGCACCGAGTGCATCTGCGGCGTCTGT
CGCGAATGTGTGGAATGTTTCATCGGCAGCCCGCCACCTCCTTCCGCAACGTCACCTCCAGCCCGGGCAG
45 TGCCTTGCCCCACGGCCCGACAGCTATCCTAGCGCCCGAGGTTGTCCCCGCTGTGCGACCGTCCGGCGGCA
AGTGGAAGGCTTTTCAGCTGGATTTCAAGTAG

50 **SEQ ID NO. 84**

MVNTPPDQRPQLSPSNPNPPSRRRNDRDIYVADASEPATPRPMDDTHPAAATAAVALAQLHHNRLVSDWET
DMESHSDNDISRDRMRSSIELPSLRDHFQDSLPPFSRPRELLPSILNHSPPGRSSTLPPIQQKKWPRPR
KSSISGARKPKHERSKSKEYGRRPSLGDRKALSAEPQTAAWAQGKRWEDLIEAATSATEADDERHSEVGRS
PTIPPVSSFTSAPMGKNRSSLPPGFQGLPPPTSHRPFPPHPYAASPLNNDLEPFPSISSLDSASTASGKT
LHYNHVGPNANDSSPVLNMFSSAVQRQHRFSNPTPASMRSREIQIYCAHCKRPWALNECYACTECICGVC
55 RECVGMFIGSPPTSFRNVTSSPGSALPHGPTSYPARGCPRCRTVGGKWKAFQLDFK

SEQ ID NO. 85

ATGCTGGACATTCCGAAGGACATCGAGAAGATCTCGATCCCTGTGAGCTTTGCCTTGGGCGAGCATGACAG
CGCAATCAAGCCGGCTCAGGTCACCTCAGATCAAGCAAACCTCTGAATGCAAAGGAAGAGAATGTGGCTAGTG
AAGTGAAGATGTATTACGGTGTGGTACGGCTTCTGCGTGAGAGCGGATACCAAACCTGGTGGACGCAGAC
ACACAAGCAACTGAGGCAGAGAATCAGGCCCTGGCTTGGTTCAATCGTCATTTTCGCGGACTTTTCATCC

SEQ ID NO. 86

MLDIPKDIEKISIPVSFALGEHDSAIPKPAQVTQIKQTLNAKEENVASEVKMYYGVGHGFCVRADTKLVDAD
TQATEAENQALAWFNRHFADFSS

SEQ ID NO. 87

ATGTCTAGCCAACCTCTCCTCCAAACCGCTCCGGGCAAGCGAATTGCCCTCCCAACCCGAGTCGAACCCAA
GGTCTTCTTCGCTAACGAGCGCACCTTCTCTCATGGCTTAACCTTCACCGTCATCCTGGGCGGCCTAGCGG
TCGGCCTCCTCAATTTTCGGCGACCGCATCGGTGCGATCTCCGCAGCTCTCTTCACCATCATCGCGATGGGC
GCAATGATCTACGCCTTGGTGACATTCCACTGGCGCGCGCAGAGTATCCGTCGGCGCGGACAGAGCGGTAT
CGATGACCGATTTCGGTCTTACCATCCTGGCCATTGCCCTCCTCGCCGCCGTCGTTGTAACTTCATCTTGC
GGATTAAGGACGGGCAGATGAAC

SEQ ID NO. 88

MSSQPLLQTAPGKRIALPTRVEPKVFFANERTFLSWLNFTVILGGLAVGLLNFGDRIGRISAAFLTIIAMG
AMIYALVTFHWRAQSIRRRGQSGIDDRFGPTILAILLAHVVNFIILRIKDGQMN

SEQ ID NO. 89

ATGCATGATGACTCTGGAAAAAGCGGCCTGCAAATCCAAAACGTCGAGACGGGGGGTGGCTAGAGGTCAC
GAACTCCGGGACGCGAGTCCAGTGTGGGATGACGGAAGTCGGTAGCGAGACGGTCTGGGATCTTGTCTTGC
TTCCTACGCCATCGTCCCTGCTTCAAGGGTTGGCGGGCACAGGGGCGGCTTCTCGTGGTGGCTCTAGCCGC
TCGTGCGGCCCTCGTGGGCGACGGGATGACGATGAGGATACGAGGAAAGACTCTGACTCCTCTGTATTGGA
ATATAGTGATGACTCTTGTGACGATGGGTGGACGATTAGGGCAGACCCCGTTGTGAGGCATCGAGACGGCC
TGGCGCATCAGGACATTACCATGCGCAAATGC

SEQ ID NO. 90

MHDDSGKSLQIQNVETGGWLEVNTNSGTRVQCGMTEVGSETVWDLVLLPTPSSLLQGLAGTGAASRGGSSR
SSRPRGRRDDDEDTRKDSDSVLEYSDDSCDDGWTIRADPVVRHRDGLAHQDITMRKC

SEQ ID NO. 91

ATGATCTCCGCTCCGGGTCCCGAGCGACGGCGCAGACGGCCGGCAGTGTCATGTTCTCTTTGCAGAAGGCG
TAAGATTAAATGCAACCGCGAAAGCCCCCTGTAGCAACTGCATCAAGTCTAAGGCGGAACCATGCGTCTACC
AGAGCGACTCCTCGTCCCGGCCGACGAGCATCTTGGCTTCAATCAGACACTGGAGCTAGGGCTCTGCAAG
GCGTCTGAACGCCAGATGCTCCCTCCAGATGCGGTAACCTTCTCAAGTTCCTAGCTATGCGTCCAGGTCATT
ACTCTCCAGCGCGAGAGACTCGTCATCCCGGACGAGTCAAGCTTCTGCATCGGAGGTTGAGTCTCTGAAGA
CCAAGATCAGACAGCTGGAGGAACAGCTGTCCAGTGCGACGCGAGCCGGCGGAATCACCTCCACGGCCGCTCT
CCAAACTCCAGAATCGAGACCAGCACGTCTCAGATAGCAGGGACGTTCCACATAAACCATGAAAGGCGGCT
TCTCCACGATTCCCAGTTCGTCAACCGAAATCTGGTCATACATAAAAGTCGCCCTGTTTGGCTCCAGTCATT
GGGCACAGGCTGCATCGATGTTTAGAGATGTATTTGAAATGATCGAACCGTTTATCCGCGGGAGTGGTTCC
AAAGCCAGTGCCGGCATCAGAAGGTGCAAAGAGCTGGCAAGGATTATCAAACCCCAACGGACGCCGCAATG
GCCGACGCCGCCACTCAGGATCTACCTCCAAAAGGCGTCGCTGATGAGTTGGTTGACTGCTATCTCCGTA
CAATCGAGACTACATTCCGGGTCTGACGTACCTACATTACAGGTCCGAATATGACGCTCTATGGGTATCT
GAAGCACGGGCCAGCATCGCGTTCACAGTCCAACCTTAAGCTGGTGTGGCACTGGGGTCTGTCACTTACGA
CGAGCGGTTTTCAATGAGACCCAGTGCGGTTTCGTTGGGTATTTGAGGCGCACACCTGGCTCTCTGATCCAG
ACTTCAAACCTCAACTTAACATACAGTGTGTTGCAAAGCAGGATTCTACTATTACTAGCCCGCGAGATAATC
AATGTTGGTGGCGATTTCGAGTTGGATATCTGCCGGCGGACTACTCCGCACTGCTCTACATATGGGATTACA
TAGGGATCCGCTCTGTACTGCCGCCTAGGTCCGGCGCTCGCTGTTGAAATGCGACGCCGACTGTGGAACACTA
TCCTCGAGCTATCACTGCAGTCAAGCATTTCCCTCCGGTGGACCTCCACTAATTTCCCTGGGCGATTTGCAC
TGTGCGCCTCCAGGGAATTTTCGACGACGAACAGCTACTGGCTGAGGACCCGGTGCCGAAGAGTGATGATGA
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TGAACGATCTAAGTTCATATGGGACTTACGAGGAAACTCTTCGACTTGACGCAGATTTAAGGGAATCTTAC
AGGGCTATTTGCCGTATCCTCCGAGGGTATCCAGCAACGGGCTTCCCCGTCACAGTTCGAAAAATGCAT
GCTCGACTTCATCATCCACTTCTATGTGTGCTGCCTCCATATTCCTACATCGAGAAGTCACTGCGGGCAC

CGGCATATGCATTCTCCAGGAAAGTCGCGATCGAGAGCGCCCTCAAGATGTGGTGCGCCATTTACCCATCT
TCCAGATTCATGAGCAACACCCGTCGCGAGATTAGCGGATCCGTTGAAAATAAGCTGACTCGGTTCGTGGA
ATGCGGGTTTGGGTTTTTCCGCACTGGTGTTATAATCGCGGCCATGTTTCGTGACCTTGGAGCTTAAAGCTC
AGCTCCTGGATGATGACAGCCTAGGTCCCAGCCCGTATCGGGTAGATCTTTTCTCTCTGCTCTGTGAGGCG
5 AAAGACCGTTGTTGGAATATGATTCAATGTGGTGAGACTAATGTCAAGGGCTACCTCCTCATTGTCTGGT
AACCGCCCAGATCGAGGGGCTGATGCATGGAGTTGAACCGAGCAAACCTCCCCGAACTCCTTCTCCGCGCAG
CAGAAGAGGCGGAGGACCGGTGTCTTGACTTCATGGAGGAGAAAGCCGATCTGGGACGGAGTGGTGGTTCC
GTTGAGGTGATGGACGAATCTGCGAATACAGCGCCCTTCATGGGCGACTGGGAGTTTATTATGACAGATCC
10 TTTCTTAATTATCCTGGGACTACTGAACCACTCAGCTGGGTATGAATGAAGAAACGAGACCATTTCATAA
TG

SEQ ID NO. 92

MISAPGPERRRRRPAVSCSLCRRRKIKCNRESPCSNCKSKAEPCVYESDSSSRPQQHLGFNQTLLELGLCK
15 ASERQMLPPDAVTSQVPSYASRSLSSARDSSSRTSQASASEVESLKTKIRQLEEQLSSATQPAESP RPSP
PNSRIETSTSQIAGTFHINHERRLLHDSQFVNRNLVIHKSRLFGSSHWAQAASMFRDVFEMIEPFIRGSGS
KASAGIRRCKELARI IKTQRT PQWPT PPTQDLPPKGVADDELVD CYLRTIETTFRVLHVPTFRSEYDALWVS
EARPSIAFTVQLKLVLALG SVTYDERFSMRPSAVRWVFEAHTWLSDPDFKPQLNIQCLQSRI LLLLAREII
20 NVGGDSSWISAGGLLR TALHMG LHRDPSVLPPRSALAVEMRRRLWNTILELSLQSSISSGGPPLISLGDFD
CAPPGNFDDEQLLAEDPVPKSDDEYTQTAIARALRGTYPQRLAIVKFLNDLSSYGTYEETLRLDADLRESY
RAICRILRGYPSNGPSPSQFEKMLDFIIHFYVCC LHIPIYIEKSLRAPAYAFSRKVAIESALKMWCAIYPS
SRFMSNTRREISGSVENKLTRFEVCGFGFFRTGVIIAAMFVTLELKAQLLDDDSLGPSPYRVDLFSLLCEA
KDRCWNM IQCGETNVKGYLLICLVTAQIEGLMHGVEPSKLPELLLR AAEAEADRCLDFMEEEKADLGRSGGS
25 VEVMDESANTAPFMGDWEFIMTDPFLNYPGTTEPLSWVMNEETRPFIM

SEQ ID NO. 93

ATGACCAGCACAATAGCCCGCACTGAGGAACGCCAGAACGCTGGCACCATTGAACTGAAAGATGACACGGT
CATCGTGGTCCTCGGTGCCTCCGGAGATCTCGCAAAGAAGAAGACGTTCCCTGCACTGTTTCGGTCTTTACC
30 GTAACAAATTCCTCCCCAAGGGGATCAAGATCGTTCGGATATGCTCGGACGAACATGGACCACGAAGAATAT
CTGAGACGGGTGCGCTCGTACATCAAGACCCCCACCAAGGAAATCGAAGAACAGCTGGATGGCTTCTGCCA
GCTGTGCACCTACATCAGCGGCCAATATGACAAGGATGACTCGTTCATTAACCTCACTAAGCACCTCGAGG
ACGTCGAGAAGGGCCATAAGGAACAGAACAGAGTCTTCTACATGGCGCTGCCTCCTAGCGTCTTCATTACC
GTGTCGGATCAATTGAAGAGAACTGCTACCCCAAGAACGGCATTGCCCGTATTATTGTCGAGAAGCCCTT
35 CGGCAAGGATCTCCAGAGTTCTCGTGACCTCCAGAAGGCCCTTGAGCCCAACTGGAAAGAGGAGGAGATCT
TCCGTATTGACCACTACCTGGGTAAGGAGATGGTCAAGAACATCCTCATCATGCGCTTCGGAAACGAGTTC
TTCAACGCTACCTGGAACCGTCAACCACATTGATAACGTGCAGATCACATTCAAGGAGCCGTTTCGGCACGGA
GGGCCGTGGAGGCTACTTTGATGAGTTCGGCATCATTCGTGATGTCATGCAGAACCACTTCTGCAGGTGT
TGACGCTTCTTGCCATGGAGCGTCCCATCTCTTTCTCTGCTGAAGACATTCGTGACGAGAAGGTGCGTGTT
40 CTGCGCGCGATGGACCCCATTGAGCCCAAGAACGTATCATCGGCCAGTACGGAAAGTCGCTCGACGGTAG
CAAGCCCGCCTACAAGGAGGATGATACTGTGCCTCAAGACTCGCGCTGCCCGACTTTCTGCGCCATGGTTG
CGTACATCAAGAACGAGAGATGGGATGGCGTTCCCTTCATCATGAAGGCCGGTAAAGCCCTGAACGAGCAG
AAGACCGAGATCCGTATCCAGTTCCGTGACGTCACTTCCGGCATCTTCAAGGACATCCCCCGCAACGAACT
TGTCATTTCGTGTCCAGCCCAACGAGTCGGTGTACATTAAGATGAACTCGAAGCTACCGGGTCTCTCCATGC
45 AGACGGTCGTTACCGAGCTTGACCTTACCTACCGCCGCGGTTTCTCCGACCTCAAGATCCCGGAGGCCTAC
GAGTCTCTGATTCTGGATGCTCTGAAGGGTGACCACTCGAACTTTGTCCGTGACGATGAACTTGACTCGAG
CTGGAAGATCTTCACCCCTCTGCTGCACTACCTGGACGACAACAAGGAGATTATCCCCATGGAATACCCCT
ACGGCTCTCGCGGACCTGCTGTGCTCGACGACTTCACCGCGTCGTTCCGGGTACAAGTTCAGTGATGCTGCT
50 GGCTACCAGTGGCCCCCTGACTTCGGCTCCCAACAGACTG

SEQ ID NO. 94

MTSTIARTEERQNAGTIELKDDTVIVVLGASGDLAKKKTFPALFGLYRNKFLPKGIKIVGYARTNMDHEEY
LRRVRSYIKTPKEIEEQLDGFCQLCTYISGQYDKDDSFINLTKHLEDVEKGHKEQNRV FYMALPPSVFIT
VSDQLKRNCYPKNGIARI IVEKPF GKDLQSSRD LQKALEPNWKEE E IFRIDHYLGKEMVKNILIMRFGNEF
55 FNATWNRHHIDNVQITFKEPFGTEGRGGYFDEFGIIRDVMQNHLLQVLTLLAMERPISFSAEDIRDEKVRV
LRAMDPIEPKNVIIGQYGKSLDGSKPAYKEDDTPQDSRCPTFCAMVAYIKNERWDGVPFIMKAGKALNEQ
KTEIRIQFRDVTSGIFKDI PRNELVIRVQPNESVYIKMNSKL PGLSMQTVVTELDLTYRRRFSDLKIPEAY

ESLILDALKGDHSNFVRDDELDSSWKIFTPLLHYLDDNKEIIPMEYPYGSRGPAVLDDFTASFGYKFSDAA
GYQWPLTSAPNRL

SEQ ID NO. 95

5 ATGACACCGACTCCCCGTCAACCACCTCGTCCAGCGCCGGTGGAATCTCACCGGAGGGCCATTATCGAGT
CATCCGAAAGCGAAACCGGGTGCCTCTATCCTGCGGCCCTGCCGACATAGAAAACCTCAAATGCAACCGTG
CTCATCCATGTGAAAACCTGCGTCAAACGGGGCGATGCCTCGTCTGTACCTATGCACAAGCCAACGCGCGG
AAAAAGAACTCACCGCTTCAGACCGCTTCGAGCTCACCCGACGACATGCAAAACCGGATAGATCGTCTTGA
10 GAGCTTGGTGCTCTCTTTGATGACCAATGGATCTCAGTCCGCGAGGCCCCACGGCAGCTATGGCGGTCATTT
CCGGCAACTCCAGCAGCATCGGCTCCGCTCAACATACGTCCGGAAGATGTAGAGCTGGACGATGATGATGGG
CAAGGTCCCGAGGAGAGTGATACGGAGCAATTGACCAAGTCGATCGGTATCATGAAGGTCGACAACAACAA
ATCGTGGTATATCAGTGATGCACATTGGGCATCGGTCTGAGCGATATAGCGGAAGTCAAAAATTACTTCA
ACACGCACAAGAAGCAATATGAAGAACACGCAGAGAAAATTAAAGCGACGCGACTCCCAACAGATGTTCCC
15 GGCTCGACCTTGCTCTTCGGTGGGACGAAAACGATAAGTCGCGAGGAAATCATGGCCTCTTTCCCATCCAG
GTATACTGCGGATATCCTCGTTGCGCGCTATTTCAACCACTATGACCCTTCCACGCACATTCTTCATGGCC
CTACCTTTCAGGCGCAGTACAATAAACTGGGAGGACCCCTCCAAAACCTGTATTGTTTGGATCGGTATG
CTTTTTGCTATGATGCGACTCGCCATGCTCTCATATCATCGCGAGGGCGACGAACCTCCGGAGTTTCGCGG
GAAGGCGCTGGACATGGCGGGCACATACCGGAATCTCATGGCCAGTGTTTGACGTTGGCCGACTACACCA
AACCGTACCCTTGTTTGATCGAATCTTTAGTCTTCCATCTTTACGGCGACTTCTGTCAGTCAAAGGATGCC
20 GACGTGTCTGGATGGGTGCTGGTGGGCGTGATTGCGGAGACTGGCCATGAGGATGGGTTACCACCGGGATT
GAAGATGTTCCCTAATATCACCCCGTTCCAAGGTGAGATGCGACGGCGGGTGTGGGCTTTTGTCCGGCAAG
CAGACTTGCTCTTTTCTGCCCAAGTCGGCCTGCCAGCATGATTCGCACTTCGGATAGTGATACGGAGCTA
CCACGCAATCTCTATGACGACGATTTTGACGAGAATTGCACGGAACCTCCACCGTCTCGACCATCTACCGA
AACCACGCCCATCTCTTTCTTGATCGCGAAGGCCCGTATCACATATGCTTTTCGGCCGCGTTATAGAAGACA
25 CATCTTCTCTCCGAAGCGCTCCATACGACAAGGTGATGGAATGACGAGGAGCTTCGTCGGGCAAGGGAT
TTGGTACCAGAGCACTTGAGAGTTCGCTCTGTGCAAGAGACACAACCTGGATCCCGCGAACCTTATCATGTC
TCGGTTTGAGATCATGAGTGTGTACCACAAAGCTCAATGCGTTCTCCATCGGCGATTCTCTCGCCCGGGCGC
GCGAAAACCTCGATTTACCTATTCTCGAAGAACCTGCATTGATTTCGGCTCTGGAGCTACTGCGATATCAG
TCCATGATTCATACCGACACCCGTCCCAACGGTCGTCTGCGAGGGAAGCTCAACCGGACCACGTCCCTCTG
30 TTCGAGCGACTTTCTGCTTGCCGCTACCATTTGTGTGCCTAGATCTCTATCATGGACTTCAGCTACAAGCTG
GAGGTCGCGCTTCAGATGACACCTACACCTGGGGACGGGAGCGTCGCGACGAAATGGTTGCGGCTCTACAG
CGCTCGAAGGAGATCTGGGACGAGCTTCAAGACGAGACCATAGACGCGTGGAAGGCTTCAGGAGTCCTCGG
CGTGATGCTTGCCCGGCTGAACCTAGACGGCAACACCGCTTCGACCACGTTCAACCGCAAGACGAGAAGC
AGAGTGCCGCGATGACGTTAGGCCTGCTTAGCAGTGGCATGAACTATATGAATCCAGGAACACCTGGCTTT
35 GGAGAAGCCACAACCAAGATGGCAGATACACAGTGCCGCCCCCGGGCGGCTTTGGTGCCGCTGATATGCC
TGGTGCCCCATCACCTTCAGCGCCATGTTTCGGACAGATGCCAGATATGCAGGTCAATTTGGATTGGGACG
CTTGGGACAACCTACATTCAAACTCCTCGATTGACTTTTCCAATCAGTGGTGGCCGGCTATGGACGCACAG
CAAGCGCCACAGCCTCCGCAACCAGGGAACCCGCTTTCGCCATCTCAGTTGGCTGCAACACAGGGCGGAAT
TGCAGGAAGGATGCGTACGATGCCGTGCTTTCTAGCGCATTTCCAGAACCCAATGGGTACGATGCGGCTT
40 TCCCTACATCCTTCAGCGTGAATGCGCCGAAAAACCCACACAATCCTGCTTCAGGCCCAGGAACA

SEQ ID NO. 96

MTPTPPSTTSSSAGGISPEGHYRVIRKRNRPVPLSCGPCRHRKLKCNRAHPCENCVKRGDASSCTYAQANAR
KKN SPLQTASSSPDDMQNRIDRLESLVLSLMTNGSQSAGPTAAMAVISGNSSSIGSAQHTSEDVELDDDDG
45 QGPEESDTEQLTKSIGIMKVDNNKSWYISDAHVASVLS DIAEVKNYFNTHKKQYEEHAEKIKATRLPTDVP
GSTLLFGGTKTISREEIMASFPSRYTADILVARYFNHYDPSTHILHGPTFQAQYNKHWE DPSKTCIVWIGM
LFAMMRLAMLSYHREGDEPPEFRGKALDMAGTYRNLMAQCLTLADYTKPYPC LIESLVFHLYGDFCQSKDA
DVSGWVLVGVIARLAMRMGYHRDSKMFPNITPFQ GEMRRRVWAFVRQADLLFSAQVGLPSMIRTS DSDTEL
PRNLYDDDDFDENCTELPPSRPSTETTPISFLIAKARITYAFGRVIEDTSSLRSAPYDKVMEIDEELRRARD
50 LVPEHLRVRSVEETQLDPANLIMS RFEIMSVYHKAQCVLHRRFLARARENPRFTYSRRTCIDSALELLRYQ
SMIHTDTRPNGRLRGKLNRTTSLCSDFLLAATIVCLDLYHGLQLQAGGRASDDTYTWGRERRDEMVAALQ
RSKEIWDELQDETIDAWKASGVLGVM LARLNLDGNTASTTFEPQDEKQSAAMTLGLLSSGMNYMNP GTPGF
GEATTKMADTPVPPPGGFGAADM PGAPSPFSAMFGQMPDMQVNLDWDWDNYIQNSSIDFSNQWWPAMDAQ
QAPQPPQPGNPLSPSQAATQGGIAGRMRTMPSLSSAFPEPNGYDAAFPTSFSVNAPKNPHNPASGP GT
55

SEQ ID NO. 97

ATGACACCGCGACAATCCTCCCCATCCGAACACTCGCACTCCGACAACAATGTGCGCAAGCGCGTATGTAA
AGCCTGCGATCGCTGTCGCCTGAAAAAGTCCAAGTGTGACGGAGGCAACCCGTGCGGCCGGTGTGCGCGCAG
ACAATGCCATCTGCGTCTTTGGCGAGCGCAAAAAGGCGCATGACAAAGTGTACCCCAAGGGATACGTTGAG
ATGCTTGAACAGCAGCAGGCCTGGCTCGTCTACGGCCTGCAGGAAGTGTACCGCCGCACCAGCGACGGCGA
5 AGGCTGGCCCCGGCGAGCCGCTCAAGTGGGAGGCCAACGGCCACCCGCTCACGCACGACCTGCTCACCCGCC
TCGGCGCCCTCGACCAGGCCAAGGGCGAGCGCTTCGAGGAAAACCCCGACGCCATGCAGCAGGAGCTCTGG
CGCCAGAACGCCGGCCACATGCAGCGCCAGGACTCGTCCGACGCCAGCTCCGACAGCGCCCACTCGCCCGT
CGTCCCCTCCGTGCGCGCCGCGCGCCGCTCGCTTCGCGACCCCTTCGCCCAGCCCCAGCTGCCCCCA
10 CCCCGCCAAATATCAGCCCCAGCGCCCGCCCCGTCAAGTCCGAGTCGTGCGCAGATGCCGCCGGCCTTTGCG
TCCGCGCCGCTGGGCATGCAGGGCGTCGTCAACCCCATGGTGCTGCAGGCGCCGCAGCAGCAACAGCAGCA
GCAGCAGTCGTGGGGAGGGAATGGGTTTCGGCGGGTTCGATGATATCGACATGATGGGCACGACGATTTTA
CCAACCTGTCGTTTGACGATCCGCTGTCGTGCGCGATGTTCAATCGACCCGTGCCGATCAACTGCATGTCG
TATATGGACTTGAAGGGCGACTACGACGATCTGAACCAGTTTGTCAATGCGAATGCGCCGGAGATCGCGTC
15 GACG

SEQ ID NO. 98

MTPRQSSPSEHSHSDNNVRKRVCKACDRCLKSKCDGGNPCGRCRADNAICVFGERKKAHDKVYPKGYVE
MLEQQQAWLVYGLQELYRRTSDGEGWPGEPLKCEANGHPLTHDLLTRLGALDQAKGERFEENPDAMQQELW
RQNAGHMQRQDSSDASSDSAHSFVPSVAAAAAARFADPFAQPQLPPTPPNISPSARPVKSESSQMPPAFA
20 SAPLGMQGVVNPMLVLAAPQQQQQQQSWGGNGFGGFDDIDMMGTTFDFTNLSFDDPLSSPMFNRVPINCMS
YMDLKGDYDDLNQFVNANAPEIAST

SEQ ID NO. 99

ATGCTCTGTCACATCATGACAGTGGCTACACCCGCTGTGACGCAAGTCCATGAAAATGGCCTGAACGGACA
25 TGTCCACATCAACATCACCACCACCACCATCATCCGCACCAACCAATGTGAACCTGCCTCGGTTTCACC
CAATCGCCATGAACCCGAGCCAGCCAGTCCATCCAGAGCACATGGCCGTGCCAAATCATCCTCACTTTCGC
CCATTTCCGCCGCCGCCGCCAATGCATGAACCCGGGCGCCTCCCCCGGGGGCTCATCCCGCCCATATAGA
TCATATCGAAGCTCGACTGAGGCAGTTGGAGCATGAGGAAGCCGCTCGCATGGCGGCTCGTAGTCAACTAC
30 TCGCAATCCGCAAGCGGGAAGACGAAGAATTCCGTAGGATGACCGAGAACGCTGAAGCGGAAGAAGAGGAA
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AACAAAGCCCGCCAGAGCCACGACCGATTCCCGTGCAGGCGCGCGCACCACCCGCCACCGCCTCCGCAG
CATCTGCACGACTCGACGGGGGCCACCATCCGCCGCAAGCAGAAATACACGATCAAAAACGTGGAAGCATG
35 GGGCGAGCGCCACGGCCGTCCCGCGGCGCACGACCCGTCCGGCCGCGCGCTGTGGAAGCGGCCCTCCGACG
GCAGCCTGGTGTACCTCACCTGCCCGGTGTGCGGGCTGCGGCAAGGCCGACTTTGTACGCTGCACGGGTTT
ATGTGCCATCTGACCAAGAAGCACAAGGACCGCAGCCTGGGCAGCCAGTCGCGCGCGCTGGAAGTCTGCGG
CATCGTCTACGACCCCAACGCGCCGCTGCCGCCCGTGGCCGCCGTGCCCCGCGCCTCCACCGAGGAGAGCC
40 GCCTCGAGTCGCCGCACCCGGACGGCTATCCGCAGGAGATGGACACGTCTTCGGTATCGGACGAGGAGCAG
CGCGAGCACACCGTCAAGACCGAGTCCACCGAGAGATCGTTGCCGGCGCACGCGGCGCCCTTCCCGCCCC
CGACGAGCCCGTCAAAGCATCCCGTCTCAACGGCTCCACGAAACAGACCATCTCGTCCATCATCGACCGCG
AGCCGGACGATGAGCCGCGCGAGCGGCCCGCCTCCATCCCCCCCCGTCCAGCCCGAGTCGGCCGTCTGCCT
TCCCCGGAGCAGAAGTCGGTCTCGGGAGGAGGAGCCCAAGTCGGCGGATAGCGAAAAGGAAAATACGGA
GCCGAAAGACGTGTCGGAAACAAAG

SEQ ID NO. 100

MLCHIMTVATPAVTQVHENGLNGHVPHQHSHHHHHHPHQTNVNLPRFHPIAMNPSQPVHPEHMAVPNHPHFR
PFPPPPPMHEPGPPPPGAHPAHIDHIEARLRQLEHEEAARMAARSQLLAIRKREDEEFRRMTENAEAE
LRRQRKRLKRESMGLGFNATVDSPLRPTPPRRLSETNAATTLAFFKQQSPPEPRPIPVQAPPHPPPPPG
45 HLHDSTGATIRRKQKYTIKNVEAWGERHGRPAAHDPSGRALWKRPSDGLVYLTCPVSGCGKADFVTLHGF
50 MCHLTKKHKDRSLGSQSRALEVCGIVYDPNAPLPPVAAVPRASTEESRLESPPHDPGYPQEMDTSSVSDEEQ
REHTVKTESTERSLPAHAAPFPPPPDEPVKASRLNGSTKQTISSIIDREPDDEPRERPASIPPVQPESAVLP
SPEQKSVVREEEPKSAADSEKENTEPKDVSETK

SEQ ID NO. 101

ATGAACGATCCTTTCGTCCCCGCCAAAAATCCCGGCCCGACGAAAGCCGCGGGTCCCTCGCTGTTGGCCTG
TCTTCTGTGCCGTACAAACACCTCAAATGTGATGGGAAACTCCAGTGTGCGGACGCTGTGCCGCTACTG
GATCGGAATGCCAATATACCCCGTCGCGTCGTGGGTACAAGGGCCCGTCGAAGAAGCGACGCGCAAACCCG

TCGTCTCCAGAGCAAACGCCCGCCGATCTGGCCGCCTCGTTTCGATCCGCAGTCCATCGGTTTGGTCAATGT
 CACCCCTGACTGGAGCCTGCAAAACACGGTCCCTTTTCATGCCCCGTCGCTACCTTCCCGTCCTCCTCGTCGA
 CCAGCCCGGGCTTGACCGACTACACCAATTCTTCGCAACCCATCCGGTTCACGAATGACCCCTAACTCCC
 GACTCTTCCGCCTCGGTCCCCGGTGATGGGTATTTGATCGATATCTACTATACCTATTTCCATCCCTCGCA
 5 CCAAATTCTCCCTCCGCTCCGCTTTCTCTACCGCTCCTATCTCCCGACCTTCCTGGAGCAGGTCATCAAGT
 TCATCGGTGCTCATTTCACTCCGGCCGCTTCGAGCGAGACGTATCGACCCACCGTTGTGTCAAATGTGAAG
 GAGCAAGAGGGCTCTATAGAGAAGCTGCAGGCTCTCTTGTGCTCGCGGTGGTCCTCCACTCTCGCAATGA
 ACGTCCCGAAGCTGGCGAGTGTCTCGCCGGAGCTGTTGACCTAGCGTTTGAGCTGGGACTCCAGACGCAGA
 GTTTCGCCACCGCGATGAGCGACGGTGACCCCATCCGCGCGGAATGCCTGCGGCGCACATGGTGGGAGCTG
 10 TTCATTATCGAGGGGATGCTGACTGCACTTGGGGTTCAGAGCACTTACCGTACCAACATGGTGCCGCCGGA
 GGTGGGACTACCATGTGAGGAACGGATCTACCAGGATGGCCTGGCGCCGCCCCCGCCTCCAACGATCGCTC
 AATTTCGACAATCGCGTCTTCGCCGACGAGGAGCGCGACTTCTCTTCCTTCACCTACCGTATCGAGGCGGTC
 CGCATTTCTCGGGCGCGTGGTCCGCATCCAGGACATGGTCGAGGGCCAACAGGACCATGTGGAGGCCATTGA
 CGCCCGAATCACGAGTTGGTTCACCACCTCCCCGAGTCCAAGGCGGAGCTGCTGCGTCCCGATGGTTCCG
 15 TGGATGAGATGATGTTCCAAGCCACCATGATCGTGAACGGCGCGTCGATATACCTCCACTTCCCCCGTTCT
 GATTTGCTGTCATCGCCCGCCATGGCCGCGGAAGTGATCTGCGGTCAACACGGACCTGCAGCATTTCCCGC
 ATTTTCACACCACGCCCATGCAATGAAGGCCCTCAAAGCCGCCAGCGAGATCTCCTCGCTGGCTTCCATCC
 GCATGCCGGTGGTCAAACACACGCCCTTCTTCATCTGCGCCCTGGTTATGAGCTCGATCGTGCAGCTGGCT
 GCATGCTCCGTCAAGGCCGGGAGATGCCCGATCCCAGCCGGGATCGCCTCACCTGACCATTTGGCGTCTT
 20 CAAATCCCTGGCCCGCACGTGGGCCATCTCCCAGACAATCATGAGGCAGATCAAAGCCGTGTGCGCGCATG
 TTATGGACATGGGACTGCGGCCGGCCATGGACCAGATTGATCTGACGACCTCCTCGATAGCGGTCCGTTT
 TTGATGCCCCGATGGACTGATGCCA

SEQ ID NO. 102

MNDPFVPAKNPGPTKAAGPSLLACLLCRHKHLKCDGKTPVCGRCAATGSECQYTPSRRGYKGPSKKRRANP
 SSPEQTPADLAASFDPQSIGLVNVTDPWSLQNTVPFMPVATFPSSSSTSPGLTDYTNSSQPIRFTNDPLTP
 DSSASVPGDGYLIDIYYTYFHPSPHILPLRFLYRSYLPFLEQVIKFIGAHFTPAASSETYRPTVVS NVK
 EQEGSIEKLQALLLLAVVLHSRNERPEAGECLAGAVDLAFELGLQTQSFATAMSDGDP IRAECLRRTWWEL
 FIIEGMLTALGVQSTYRTNMVPPEVGLPCEERIYQDGLAPPPPTIAQFDNRVFADEERDFSFTYRIEAV
 30 RILGRVVG IQDMVEGQ QDHVEAIDARITSWFHHL PESKAELLRPDGSVDEM MFQATMIVNGASIYLFPRS
 DLLSSPAMAAEVICGHHGPCSIPAFSHHAHAMKALKAASEISSLASIRMPVVKHTPPFICALVMSSIVQLA
 ACSVKAGQMPDPSRDRLTLTIGVFKSLARTWAI SQTIMRQIKAVSRDVM DMLRPAMDQIDLTTLLDSGRF
 LMPDGLMR

SEQ ID NO. 103

ATGGCCAAACCCAACCAGCGCCATGCCTGTGACCGCTGTCACGGTCAAAAACCTGCGATGCATCCACTCCGG
 GGGTGGGCCGTGTGTACGCTGCGCCAAAGCCAAAGCCACCTGCAGCTGGAGCCAGTCCTTACGTTCCAACC
 GACTCAAGAGACATAACGCGCCGATATCTGATGTTCCCTTTGGCGTGTGCGCAACTAGCAACCCAGTCGACC
 40 GACCCAAACACACCTCAATTTGGTGCATACATGAGCCAACCTCCTCCGCCGGCGTTGACATTGACATCAA
 CTTGCTGCAGACTCAATTCACCGACAGTACTCCCTGGGCTCTGCCGGCCGGCCGCTATCCCTCTCCAGCAT
 CACAGGAAATGGAGACTTACAATGTGGGTCACACTGAGGCGGACCTTCCGGCCACCGCGGACTGGATGTGG
 CCCGCCGTCGCCAATGGTCCCGTTCAAACGACTCCCCCGGCAAATTGGCAGCAAGCATTCATCAGGAATG
 GGCTATGATGGCGTCGCAGACCCCTGTGCAACGATGGACACGCCGTCTCGGACATCGCCAGTAAGCGACG
 45 CCGTGGACCCGCCGAAGACGGTGTGCCTTCTTGCGACCATCCGCGAGTTGTGAGAGCTTAACGTCGACCTG
 TACGCACACGAAGCGACGGTCCCCAGACCTCCTGCATCTCTGGAGGAACCGATCAGCTGGAAGAACAAGGA
 TTTCGCCATCGATCGGACTTTCCACCTGTCCCAGCGGCTCATTGAGATCGTCAACAAACGATATCCGCGCT
 ACCTCGAGACGGCCCGCATGCAGACCCCGGAGGGGACTCCCGAACGGACCTCCGAAAGCAGTCTGTCTGGC
 CCGCCACTTGACCAAGGCTCATGTCTCCTCGTTCTCTCATGTTACACTCGACTCATCGAGACCTACGATCG
 50 AATCTTTGCCAATATGCAGGGATGTCTGGATCGTTCCCTCGGTACGGCCCCGAGAAGACTACGTCAATATGC
 CGTCGGTCCAAGTCGGCTCCTTCTCCTTGCCACACTCGTCCTCGTTGCAAATCGTCCTCATCCTGCAGTTG
 GCGCGTCAACTCCTAACTCGAATGGGCGAGATCATCAAAGCCGTTACGCCGGAGAAAAGAACTAACCCCGC
 TGATGTCACCTTGTCCGAATCCGCAACCGGGGTCTCCTACTGTCTAGCGCTTTGGAGACCGTCTCCGCCG
 AAGAAGACCGTCTGATGAAAAGAATCACGAACTACGAAGCACCTTGATTGAGCTAAACATTCTG

SEQ ID NO. 104

MAKPNQRHACDRCHGQKLRCIHSGGGPCVRCAKAKATCSWSQSLRSNRLKRHNAPISDVPLACAQLATQST
DPNTPQFGAYMSQPSSAGVDIDINLLQTQFTDSTPWALPAGRYPSPASQEMETYNVGHTEADLPATADWMW
PAVANGPVQTTTPPANWQQAQAFNQEWAMMASQHPVATMDTPSRTSPVSDAVDPPKTVCLLATIRELSELNVDL
YAHEATVPRPPASLEEPISWKNKDFRIDRTFHLSQLRIEIVNKRYPRYLETARMQTPEGTPERTSESSLG
5 PPLDQGSCLLVLSYTRLIETYDRIFANMQGCLDRSSVTAREDYVNMPSVQVGSFSLPHSSSLQIVLILQL
ARQLLTRMGEIIKAVQPEKRTNPADVTLSESATGGLLLSSALETVSAEEDRLMKRITKLRSTLIELNIL

SEQ ID NO. 105

ATGGAGACGTATTACGGGCACGTTCCGACACCTGCGGACGCTATTATTCTTTTTGAGGCTTGCCGTATCGG
10 CCTTTTACCTCGCGTGCAAAGACGATTATCAGAGAAAGAGAGACAATCAATCCGTTCCGGTTCGGTCTTTG
TATGGGATGAGCGAGAAGCGGGTATGCGGCGATGGACCGATGGGAAGTCATGGAGCGCCAGCCGTGTGTCT
GGTAGCTTTTTGACGTATCGTGAAATGGAAGGCAAGCGTGGAGGTGGTAGCGTCTCTCAGGGTTCTGCGTC
CCGAGGAGGTAAAACGCCTGAGAGTCGGGGCAGTGACGATGATCGTGCGGATGGAACAGATGAGGGACCAG
ATGGGTACCGTTACAAACCAGATGGCTTGATGAAGCAGTCTTTCAGTATCACAACTCCAACGGTCAACAT
15 CTGCATCTCATTAGCTACTATTACGATCTCACCTTCGGCCGCCAACTTACAACAACCAACTACGGATCC
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CTGTCTGTTACCCGTGGACCTATGCAAGGCGCTGCGTACCCCATAACTCCCATCCTCTCGGCGCATACCCG
CGCGTCACTCATACACAGCCATATCCACCTGCCTATGCTTGCGCGCCACCCCTCTAGCCACACCACCGAC
TGTCTCGGTTCAATACGGCCCTGGTCCTTCTTATCTGCCCCCGGTAGGTGCCAATGGACATCCTCATTATG
20 GCCCGCCACATCATCAGCCTCCACCTCATCAACATGGCGGTGGACTACCACCCCTCCACACGGGATGACA
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25 GGCGCAGCCAAATGGCCACGCGCACAGCCCTCATCTGGCGAAGCAGGAGCATCCCGCCGCGCTGCCCTCTC
TTAACCCCATCGCCGCATCACCAAGTCTTCCGATCCCGCGAGCGCTGGAAATGCAGTTCCTGGAATTGGC
TCATTAATGAACGGTGCAGGCCTGGCCCCCTCTTCTCATCGACTGCCTCTCCCGGTGGCCCCGCGCGAG
CTCGAACGGAACCCCGCGCGTCTCTTTCGCTGAGGGTCCACGGGATATCCCTAACGAGAAGATCAGAT
30 TCGGAGGCGAGGACACGAGGGCACTGCGCCAGCTGGATCGCGCCTTCATTGCA

SEQ ID NO. 106

METYYGHVTRTPADAIILFEACRIGLLPRVQRRRLSEKERQSIIRSGSVFVWDEREAGMRRWTDGKSWSASRVS
GSFLTYREMEGKRGGGSVSQGSASRGGKTPESRGSDDDRADGTDEGPDGYRYKPDGLMKQSFSITTSNGQH
35 LHLISYYSRSHPSAANLQQPTTDPALRHVRPQKGLYPESTVNDQQNLVVTRGPMQGAAYPITPHPLGAYP
RVTHTQPYPPAYAWPPTPLATPPTVSVQYGPGPSYLPVVGANGHPHYGPPHHQPPPHQHGGGLPPPPHGMT
SPYDRPPHNESTLPPAGPPSQQPSYMNRSRPSIHDHAQAHAAHAHAQAQAQAQAQAQAQAHAHEQR
TPPVYGHPLVDPRMASPRVPVQSLAQPNGHASHPLAKQEHPAALPSLNPAAASPKSSDPASAGNAVPGIG
40 SLMNGAGLAPLSSSTASPGGPAASSNGTPAASSFAEGPRDIPNEKIRFGGEDTRALRQLDRAFIA

SEQ ID NO. 107

ATGATCATGCCATACCCACCAAAATGACCCCGACACCTCCTTCTACAAATTCCTCGAGTGCTGGCCACTC
TCCAGATTACAGAGTCGTCCGAAACGAAACCGGGTACCTTTGTCTATGTGGGCCTTGTCGGCACAGAAAGC
45 TGAAATGCAATCGTACACATCCTTGCGAAAATTGTGTCAAACGAGGGGATGCTGCTTCATGTAACATATGCG
CAACCCAACTCGCGCAAGAAGAACCCCGAGCAATCATCTACTACACCGGATGATATGCAAAACCGCATCGA
TCGGTTAGAAGGCTTGGTCCTTTTATTGATGACAAACGGCTCACAGTCTGCGGGCCCGAATGCTGCCATGG
CCGCGATTTTCAAGGTGAAAGTAGTGCGGGCTCCACCCGGTTCTCCCATGACCTCGACGCCGAAGAGGAGGGT
ATGGAGGGCGCCGAAGAGAGTGACACGGACCAGGTGACGAAGTCATTTGGCATCATGAAGATGGACAATAA
50 CAAGTCCTATTACATCAGTGACGCTCATTGGGCGTCTGTATTGAGTGATATCGCCGAGGTGAAAAGTTTTT
TCTCAACGCACAAGAAGCAAATGGATGCGCAAATTGAGAAAGTCAAAGCGTCCCAACCACCTAGTGAGGCA
TCAGGCTCGACTTTGTTGTTTGGTATCAATAAACCAATGAGCCGTGGGGAGATCATGTCCGGTTTGCCTTC
GAAGTATACAACTGACATTCTTATTGCTCGCTATTTCAACTGCTACGACCCTGCAACTCATGTTCTTCATG
GGCCGACATTCCAAGCTCAGTATAATAAACATTGGGATGATCCTAGCGCGACCGAACTCGTCTGGATCGCC
55 ATGCTCTTTGGAATGATGAGATTAGCGATGCTGTCTTACCACCGCGAAGGCGACGAGCCACCCGAATTCCG
GGGCAAGTCCTTGGACATGGCCGCGGATTCGGAATTTCTGTAGCACAGTGCCTGACATTGGCTGACTACA
CGAAACCCACCCCTTCTTGATTGAGGCGCTTGTATTTCACTTGCATGGCGATTTCTCTCTGACCCGAGAG

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GCGGACATCTCCATCTGGGTCATGACTGGCGTTGTTACTCGCCTAGCAATGCGATCAGGGTATCACCGTGA
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GGTCGGGGCCAAGGCTCCCAA

SEQ ID NO. 108

MIMPYPTKMTPTPPSTNSSSAGHSPDYRVVRKRN RVPLSCGPCHRLKLCNRTHPCENCVKRGDAASCNYA
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MEGAESD TDQVTKSFGIMKMDNNKSYIISDAHWASVLS DIAEVKSFFSTHKKQMDAQIEKVKASQPPSEA
SGSTLLFGINKPMSRGEIMSGLP SKYTTDILIARYFNCYDPATHVLHGPTFQAQYNKHWD DP SATELVWIA
MLFGMMLRLAMLSYHREGDEPPEFRGKSLDMAGGFERN SVAQCLTLADYTKPHPF LIEALVFHLHGDFSLTRE
ADISIWVMTGVVTRLAMRSYHRDSKMYPNITPFQGE MRRRVWTFVRQADILFSYQVGLPGMIRGADSDTE
LPRNLYDDDFEDDECKELPPPRQLNEPTPISYLI AKARLSYVFGRVVEQSSSVSSVPYEKVMELDAELRQAR
DLIPEHLHIRPMEECQLDPINIIMS RFSVMAYVDKAQCVLHRPYLVRARENPRFTYSRRTCIDSAMELLRV
QALLHAETRNGRLRSRQSRVTSLSADFLLAGTIVTLDLYHGLSLQVSGRPSGDTYTWGRERRDEM TAAIQ
HSKEIWDES RDESMEAWKASTVLGVMLSKLHMTVPGLENSAGAASFEPQDEKQNAAMTLG LLSGMSPMNP
GQPPFADPMFKMGDSPMGTGTGAVGASAEMP GALSPFSSMFGQMPDMQVNL DWDWDWTYIQNP TLDTTNQF
WPMMDAQ RQATPQSGGMSQPSVSSPLASGRVPSISGVPRIPTMYSASSNSPD SAGVPVTGYGMT PMPQOND
GRGQGSQ

SEQ ID NO. 109

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CCGAAGTGCCCATGAAAGAGCGCGTG GTTCGAGTGTATCAAATGTTACCTCCCTTCGCCTTATCCAACCC
CAAGCAGATCTGCAACACCTGGCCCAAGCTGCCCTCAGCTTTGAGCAGAAGGCCTTCAAAGACGCTCAGCA
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CCGTCATGCAGAAATGGCATGATTC CCCCCGGGCGCTCCCAAAGCCGGCGGCATGCGTGGCGTCGGACAACCC
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GATGACCGATCCGAATCAACAGGCCGCCATGCCGCAGCGATCGCAACAGCAGCAAGCCATGATGCAGCAGC
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AATACCCTCGCCCTGGTCGACGAGCTGAATAACCTGACTCCGCAAGAGTACGAGAACGTCAATCGCGTCGC
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GATGAACCAACAACCGTTCAACAACGCCCAGAACACCTTCCCGATGGGCCAACAGCTCGCGCAGGGAGGAC
 AGGCTAATCTGGGCGCTGCCGGCATCAACCCCCAGATGTTGCCCCAACACACATGCAAAACACCCCGAAT
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 TGGCGCAAATGTCTCCAGAGCAGCTGAACCGGGTCTTGGCCCAGCGGCGCGCCATGGCGAATAATCCGGCC
 10 CTGGCGAGAGCCAACGCGGGCCCGGAATCCGTGCCCATGCAGCAGAGCGTGTCCAGTCCGCGCAGGCCCA
 GTCGATGGCGAACAACCAGAACATGCGAGCGATGAATGTACAAGCGCAGCTAGCTGGGATGGGCGGGGCGC
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 15 CAGAAGTTGATGGCCCTCCAGAAATTCCTACTTTACGCAAATACTCAACCAGAGCAAAGAACGCAGTCGCAA
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 ACCCTCAGCAGTTTCCGCGGGGGCAACAGCAAGCTGCGATCAACATGGCTGCGATCCGTCCCGTCACCGCA
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 20 TGGCCGCCCCAACACAGCAAACCCAGGCACTTCAGCAGACCCCCGTGGGCGGACCAGCTCCTGGCCCCCAT
 CTCCGCCCAGAGGGCCCTGGGCGAGCCCGCAACGCAACCGCAGCAACAAAGCCCGGCGACAAAGGCCCCCTC
 GACCGTACCAGGAAAGAAGGCCCTCCGGCGAAGCAACAACCCGCGAAGAGGAAGTTGCCGAGCGACGAGA
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 GCGGCTCCTGCACCCTCCAAGCCCAATATGCCATTACCAGAGAGCAGTTGGCCGCCATGACGCCCGCAGCA
 25 ACGTGCTCAGATTGAAGCACATATGCGACGCCAGCAAGGCCAGACTCGTACCAAGGCTGCAGCCGAAGAGG
 CTTGGAACAATCTGCCGGAGAAGATCCGTCAAGCTTATCATGATACCTTGAAACAAGCGCCCCCGATGAAA
 TTCGCAGCCATCACGCCCCGAGCAGCATGCGGCCATGAACCAGCAACTTCGGGACTGTACTGATATGCTGGG
 CCGGATGGATACCCTGGTCCAGTGGTTTGCAAAAATCCCCGGCCAAGAGAAGAATGTGCGCAGTTTGCTGG
 CAATGCGAATCCAATTGATGAGGCAGTTCAAGAATAGTCCGGACTGGGTTCTTAACGACAGCCTGACCATC
 30 TCTCCCGAAAATTTAACCGCCACCATAAATTATATTAAGAAGCTCTTCCATGCGATGATCACCCGCGTCAG
 TCAGCATCAAAATCAAGCTCCTGGACAACGACCCGGCGGTCCCCAGCCACCCTTGACACAAGCAAGCCAAA
 ACGCCATGCCAGCCCTGAATGCCACGAACCTGCAACAGCTCCAGCAACAAGAGGAAGCTCTCCAACGGGCG
 CGGCGAGCGTCGAGCCAGACCGCCGTGTCTGCAACATCGGCTGTCCACCCGCCCCATTTGGCGCGCCGTC
 CCCTCAGGGCGTTCTCATGCGTACGGGCCGGGAAGCATGCCGCCGGAGCAGTTGAAGTTGCCTCCGCCGA
 35 AGAAGAGAAAGCAGTCCCATCCAGGGGCTACCCCCACCGTCGGCACGCCTGCTACCAAGCCGCCAACCACC
 CGGCCCCGCCGACGTCAAAATGCCCGCGGCCCGCCTCGAGTCATGTAATTAGTTATGTCACGCTTACATTCAC
 GCCCTCCTCCCACATCCGCTCTAACCAGAAAGGAAGGAGT

40 **SEQ ID NO. 110**
 MNPANFNVGGSMPAAPTQMPRLDNNQVMMNYVAQALHAQGTGTGWRAEVPKERVVRVYQMFTSLRLIQP
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 SFPQQMNRAMQSNPMAGQQAMAMGMTDPNQQAAMPQRSQQQQQAMMQQQQQQQQQQQQQQQQQPRAQQRSA
 45 NTLALVDELNNLTPQEYENVNRVAHQIMTKTSPVDAEKIKRNLQNMNPVQRRYLTERNIDPVAYFFRSQAL
 AHLKRQMKARVDM SHPQNTGVDPNVMMGADPTMNPQMFPNMNLQRNSAFAMGNQPNMDPSSFIGNVENI
 QGQQADGLRSQEAGQLVVPASSSQMNQPPFNNAQNTFPMGQQLAQGGQANLGAAGINPQMFAQQHMQNTPN
 MPPDRPQPAAPFPQPTQAQNQAQAQARAQAAQKAQMAISQAGQANSHLQQPMPQQSPAMPMLNRPMPPGQM
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 50 LARANAARQSVPMQQSVSQAQAQSMANNQNM RAMNVQAQLAGMGAQQMMPGQQMSLQQQQQQQQQQQQRQ
 ELYKMQLLQQSGGNLELSNEQSKEMDRHLFPSSLGNNPNIVSLVPKNIKTWGQLKQWAATNPQLPGGLNL
 QKLMALQKFHFTQILNQSKERSRNPDAQGQGPWMSGPTQAPQQPPMMNPQQFPFGQQQAAINMAAIRPVTA
 QDIQAARQRHPAMAQNFDDQIRESLNKARQRQLMLLAQQRAAQAEELAAQQQQTQALQQT PVGGPAPGPH
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 55 AAPAPSKPNMPFTREQLAAMTPQORAQIEAHMRQQGQTRTKAAAEAWNNLPEKIRQAYHDTLQAPPMK
 FAAITPEQHAAMNQQLRDCTDMLGRMDTLVQWFAKIPGQEKNVRSLLAMRIQLMRQFKNSPDWVLNDSLTI
 SPENLTATINYIKKLFHAMITRVSQHQNQAPGQRPGGPQPPLTQASQNAMPALNATNLQQLQQQEEALQRA

RRASSQTAVSATSAVPPAPFGAPSPQGVPHAYGPGSMPPEQLKLPPPKKRKQSHPGATPTVGT PATKPPTT
RPADV KMPAAASSHVISYVTLTFTPSSHIRSNRKGRS

SEQ ID NO. 111

ATGCAAAGCCCCAGCAGCCACCCGACTTTCTACTGTACCCGACTCAGTCCACGCGTGGGAGCAAAATGAT
CGCCTTGGATTTCGTCCCGCCAGCAGCAGACCCCATTTCTTCCAGAATTTACCATTGGATCCTGCATTCACGG
ACCCTTTTCGCATTCCAGGTGGACACCTTCGCTAGCTTCGGACAGCCCGCCAGTTCCTCTCGAGGCCCCCAG
ACTTCATATTATGATAACCCCTCCGCTCTACACGGATTCTTACTCCGACTCCAATAAGACCGCCCCTGGGTT
TCCTTCCATGCCGGGTACGCCCCCGACGCTTCCCTCCACCCAGCCGCTGGACTCCCACGTTCCGGGCCTGA
CCGCCCCGTCGGGTCCGTCTGTGCGCCAGCGCCTCCTCCTCGGCCATTGGGTGCGCGTACTCCGGCACGGCC
CATGCCAACCAGGAGAACTGGGTGATACGAACCACGGCCTGGGCCTTCCCGCCGCGGTGATGGGGGATCT
GTTTCCGAACGACTACACGGGGACGACCCTGGACCCCGATTACTTTGCCAATAAAGGCGCGGACAGCTTTG
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TCCCGCCCCGTCGTCTCTCCCTCTACGACCGTCGGTCTCCTCGGTCTCTTCCGTGCAGTCCCGTCGCTCGCAG
CTGAGCCCCGGCGGCCAGCAACGCCGAGATCGAGGAGGACGCCAAGGAAAAGGGCCGATGCCCTCATCCGGA
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CCATTGTCACTTGCGAGTACCACACCAAGGGTTTGCCCGCAAGTACGACAAGAACCGCCACACCCTGACC
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GGCGGATGTGTTCAAACGTCATCTGACCTCTGTGCACGGTGTGGAACAGACCCCTCCCAACTGCCGGAAGA
GAAGCCCCGCGGCCGCTCGAGTCATGTAATTAGTTATGTCACGCTTACATTACAGCCCTCCTCCCACATC
CGCTCTAACCAGAAAAGGAAGGAGT

SEQ ID NO. 112

MQSPQQPPDFLLYPTQSTRGSKMIALDSSRQQQTPEFFQNFMTDPAFTDPFAFQVDTEASFQGPASSSRGPQ
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HANQENWVDTNHGLGLPAAVMGDLFPNDYTGTTLDPDYFANKGADS FVDPSLIPLQQQSNLSTPAISYPEQ
TDYSLVPGGFFFPQSPDPSQFQFADPYGPFTQQPCMPASSPSLMP SHVPPRRLSLYDRRSSVSSVQSRRSQ
LSPAASNAEIEEDAKEKGRCPHPDCGRVFRDLKAHMLTHQSERPEKCP IVTCEYHTKGFARKYDKNRHTLT
HYKGTMVCGFPCPGSGSPA EKSFNRA DVFKRHLTSVHGVEQTPPNCRKRS PAAASSHVISYVTLTFTPSSHI
RSNRKGRS

SEQ ID NO. 113

ATGCTCGAGTTAGTCGATGCTATTCCGCTTCAGACCCAGCCAGTTCCTCCTGCTCCTGAAGTTCAGGTT CAG
CCCCCTCCAATCGTGGAGACGGCCCATTTCAACCCTTCATGGGGATATGATTTGAACCTTCTTTCTCATGCC
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TCGAAACCCCCAGCCCGTGAGAGTTCCAGGCTGGGC**ATCGATACAAGTTTGTACAAAAAGCAGGCTCCACA**
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SEQ ID NO. 114

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5 GCGCCGCCGCCGCCGCCGCCGCTTTCTCATATAACCAGAAAGAGGGATCACTGATAACTATGGTGTTGAGCCT
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10 ACTGCTGCCGCCGCTACTGCGGCGGTGAACAACGCCCCCTCTATGAACGGCGCCGGTGAGCAGTTGCCTTGC
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15 CCGGGCATGAAGCACCTGATATGATGTTCCCCCAAACCCTAAGGGTTACGCTGCTGCCACACATTACTTC
GAAAGCCCTATCAACGGCATCAATGGG

SEQ ID NO. 115

MLELVDAIPLQTQPVPPAPEVQVQPPPIVETAHFNPSWGYDLNLLSHAASHVALEGQQESLETLRKPSQNIQ
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SKPPARESSRLGIDTSLYKKAGSTMENHTPSTTQPTLPAPVAEAAPIQANPAPSASVTATAAAATAAVNNA
PSMNGAGEQLPCQWVGCTEKSPTAESLYEHVCERHVGKSTNNLNLTCQWGTCTNTTTVKRDHITSHIRVHVP
LKPHKCDFCGKAFKRPQDLKKHVKTHADDSEIRSPEPGMKHPDMMFPQNPKGYYAAATHYFESPINGING

SEQ ID NO. 116

MLELVDAIPLQTQPVPPAPEVQVQPPPIVETAHFNPSWGYDLNLLSHAASHVALEGQQESLETLRKPSQNIQ
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SKPPARESSRLGMTENHTPSTTQPTLPAPVAEAAPIQANPAPSASVTATAAAATAAVNNAPSMNGAGEQLPC
30 QWVGCTEKSPTAESLYEHVCERHVGKSTNNLNLTCQWGTCTNTTTVKRDHITSHIRVHVPLKPHKCDFCGKA
FKRPQDLKKHVKTHADDSEIRSPEPGMKHPDMMFPQNPKGYYAAATHYFESPINGING

SEQ ID NO. 117

ATGACCGCCCCCATTACCGACGTCAGCCTGGGGGACGAGCTCCACTTAGACGGCGAGGACGTGGCGATGGCG
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CCCCACGACTCCGCCCCCTACGGCGCTCTGGATATGGCCGACTTCGAGTTTGAGCAGATGTTTACCGATGCC
CTGGGCATTGACGACTTTGGGGGAATCGATACAAGTTTGTACAAAAAGCAGGCTCCACAATGGATCCTAGA
AACCATCCCTCTCGGCCTCCGTCTACCAGTCTGCCTCAAGGATCGGCGCCTCTTCCTTCTGCTCCCATCTCG
40 AGCATGCCAATGCCTCAGTACACGATGCAGCCTCAGTACCCAGTCTCTCAGCCGCACACCCTGCCTCCTCTG
CAACCCCATCATAGCCAGTCGCCCCGCTCCTCACTCGTACATGGGGCAGCCGCGGTACCGGCCTGATCTGAAC
AGGTACCCCGCATCAAGTCACGATGTTTACGCGTCTTCTGCTGCGCCGATAATGCCCCACACTACCGTGGGC
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55 CGGCCGCATCAAGGAGCCCCCTTGCCACAAGCTCCCAAGCAGAGCCCGTATCTCGTGACGCCGGGTGCTGAC
CCTTCTGGCCACCAGTTGAATATTGACCGAAACATCGAGCAGGTAAAACAACCGGTTGTTCAAGACCCCAAG
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CCCGAGGGCTACATGTTCTCCAGTCTATGCCTGGTGGTCAAGAGCCCATCCACGCTCATGTCGAGACCGAG
CGAAAGTATTACCCCACTACCGCTGGTCAAGAGAGTGGAATGAACGGTCTCTATCTGGCTTCGACTATG
AGTGGCGACGGCACCGTTCAGCCCGCCAGACAA

5 **SEQ ID NO. 118**

ATGACCGCCCCCATTACCGACGTCAGCCTGGGGGACGAGCTCCACTTAGACGGCGAGGACGTGGCGATGGCG
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15 TCCAGCGCTCAGTCGTACCCGCAGCCAATTGCGCCGGCGCCTCCCCGGGACCGTCGTGCTGACTTCAACAAT
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25 ATGGGCGGTGGTCAGCCTGAAGACGCGTTTCCCGGGCGGCCGGCCGCATCAAGGAGCCCCCTTGGCCACAAGCT
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GGTGGTCAAGAGCCCATCCACGCTCATGTGAGACCGAGCGAAAGTATTACCCCACTACCGCTGGTCAA
30 GAGAGTGGAATGAACGGTCTCTATCTGGCTTCGACTATGAGTGGCGACGGCACCGTTCAGCCCGCCAGACAA

SEQ ID NO. 119

MTAPITDVSLGDELHLDGEDVAMAHADALDDFDLMDLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFDTA
35 LGIDDFGGID**DTSLYKKAGST**MDPRNHPSRPPSTSLPQGSAPLPSAPISSMPMPQYTMQPQYPVVSQPHTLPPL
QPHHSQSPAPHSYMGQPPYRPDLNRYPASSHDVYASSAAPIMPHTTVGSLPPTSFLSHPNPQAQAQAQSPH
YPPPHSVLPASSAQSYQPPIAPAPPRDRRADFNGLPSGAFSYSDGKPQGWDPVAANGAAPYPGKDSPRTQ
VVGSQGRRGILPSVPGRATPVTNGVNGTGKNTTIPAKDADGKFPCPNCNKTYLHAKHLKRHLRHTGDRPYM
CVLCKDTFSRSDILKRHFQKCSIRRGNPTGATHLSHPNAHVKRSQQQAAANPVKPVQDEVSSSTVPPPNGIPG
40 TTYGEGAVNGNGLAPARPGYADHQTMGFPMSSVNGMGRGQPEDAFPGGRPHQGAPWPQAPKQSPYLVQPGAD
PSGHQLNIDRNIQVKQPVVQDPKRPVMPGHPGHPGELDWTSMFQPQAPQEGYMFSSQSMPPGGQEPIHAHVETE
RKYYPTTTAGQESGMNGLYLASTMSGDGTVPARQ

SEQ ID NO. 120

MTAPITDVSLGDELHLDGEDVAMAHADALDDFDLMDLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFDTA
45 LGIDDFGGIMDPRNHPSRPPSTSLPQGSAPLPSAPISSMPMPQYTMQPQYPVVSQPHTLPPLQPHHSQSPAPH
SYMGQPPYRPDLNRYPASSHDVYASSAAPIMPHTTVGSLPPTSFLSHPNPQAQAQAQSPHYPPPHSVLP
SSAQSYQPPIAPAPPRDRRADFNGLPSGAFSYSDGKPQGWDPVAANGAAPYPGKDSPRTQVVGSQGRRGIL
PSVPGRATPVTNGVNGTGKNTTIPAKDADGKFPCPNCNKTYLHAKHLKRHLRHTGDRPYM
50 DILKRHFQKCSIRRGNPTGATHLSHPNAHVKRSQQQAAANPVKPVQDEVSSSTVPPPNGIPGTTYGEGAVNGN
GLAPARPGYADHQTMGFPMSSVNGMGRGQPEDAFPGGRPHQGAPWPQAPKQSPYLVQPGADPSGHQLNIDRN
IEQVKQPVVQDPKRPVMPGHPGHPGELDWTSMFQPQAPQEGYMFSSQSMPPGGQEPIHAHVETERKYYPTTTAGQ
ESGMNGLYLASTMSGDGTVPARQ

55

SEQ ID NO. 121

ATGACCGCCCCATTACCGACGTCAGCCTGGGGGACGAGCTCCACTTAGACGGCGAGGACGTGGCGATGGCG
CATGCCGACGCGCTAGACGATTTTCGATCTGGACATGTTGGGGGACGGGGATTCCCCGGGTCCGGGATTTACC
CCCCACGACTCCGCCCCCTACGGCGCTCTGGATATGGCCGACTTCGAGTTTGAGCAGATGTTTACCGATGCC
5 CTGGGCATTGACGACTTTGGGGGAATCGATACAAGTTTGTACAAAAAGCAGGCTCCACAATGGTTCTTCTC
AAAAAGCATTGAAAGATGTCAACCGTGAGGATCAGAGGCAAATGCCGAGGCAACGGCTGCCATCTATTCAA
GAAATATTTGGGGAGACTTTTCTGGCGATTCTTCAAATCCATCATATGCACTGCCTTCTCACACCAGACAT
GCCGCTCCACCGGCTTTGCCGGCTGTGTATGAAATTGCCCATTCATCGAAGGGGCTCCGTCAAATGAGCAA
10 GGTTTATTACCCAAAATTTCAACAGTGGAGAGATCTTTGGGCATTATCTCTCCCGTCAATGAGCTCCAGCAT
CCGGAGGTAATACGCCCCGAAAATCCATCCTTCTCTCCGAACGGTGTCTCTTAACGAAAGCCGTGCTTTT
TCAAAGCACCCGGACCTATCTATACCTCAACCGGGTTTATTGTCATGCGATCCCATGGATTTAGCACAGCCG
TCCTTTGTGCAACCTCCAAATGTGTTTCATGGATTTCCCATCAGGAAAATACCAAACCTCGATACCGCCTCAG
CCAAAGCAGTTATGTCTGCCGAAAAACGAACACCGAGTTCTCTTGATTTTCAGTCTGTTTTTTAAGGTGATC
15 GAGACAGTCAGCGCACAGACCTTGGCTTTCGTGCGGTATCACTCCGCAATGAGTCAGTCAGACAACCATCAA
AGATCCCTCCCTGGACTATCTATCACTGAGATAAATGGCCTCCTCAGTCAGGAGCAGCAAAAGCAGGATGTC
TTGATTTATATTAGGGATGAACTTGTGCGCTTCGACCAATAACCAAGCCTTAGCGCAGCAGAATACTCGGGCA
GCCGCATGTATGGCGGGTGGGGCTGACCGAGGTCTTTGTTTCATCAGTCACTAAACAGAGCAAGACCCATAAA
GTCTCTAAACAAAAAAGAGAATGGCACGGGGATAGTGCTCTTCGTTGTCATAGCTGCAACCGTTCTGAAACA
20 CCAGAATGGCGTCGTGGTCCGGACGGCCCCCGAACTCTTTGTAACGCCTGTGGTTTACATTATGCAAAATTG
TCTCGACGAACGGGCAAATTTGTGGCGTTGGACGATATTGGCATCAGGGGGCAAAACA

SEQ ID NO. 122

ATGACCGCCCCATTACCGACGTCAGCCTGGGGGACGAGCTCCACTTAGACGGCGAGGACGTGGCGATGGCG
CATGCCGACGCGCTAGACGATTTTCGATCTGGACATGTTGGGGGACGGGGATTCCCCGGGTCCGGGATTTACC
25 CCCCCACGACTCCGCCCCCTACGGCGCTCTGGATATGGCCGACTTCGAGTTTGAGCAGATGTTTACCGATGCC
CTGGGCATTGACGACTTTGGGGGAATCATGGTTCTTCTCAAAAAGCATTGAAAGATGTCAACCGTGAGGAT
CAGAGGCAAATGCCGAGGCAACGGCTGCCATCTATTCAAGAAATATTTGGGGAGACTTTTCTGGCGATTCTT
TCAAATCCATCATATGCACTGCCTTCTCACACCAGACATGCCGCTCCACCGGCTTTGCCGGCTGTGTATGAA
ATTGCCCATTCATCGAAGGGGCTCCGTCAAATGAGCAAGGTTTATTACCCAAAATTTCAACAGTGGAGAGA
30 TCTTTGGGCATTATCTCTCCCGTCAATGAGCTCCAGCATCCGGAGGTAATACGCCCCGAAAATCCATCCTTC
TCTCCGAACGGTTGTTCTCTTAACGAAAGCCGTGCTTTTCAAAGCACCCGGACCTATCTATACCTCAACCG
GGTTTATTGTCATGCGATCCCATGGATTTAGCACAGCCGTCTTTTGTGCAACCTCCAAATGTGTTTCATGGA
TTTCCCATCAGGAAAATACCAAACCTCGATACCGCCTCAGCCAAAGCAGTTATGTCTGCCGGAAAAACGAACA
35 CCGAGTTCTCTTGATTTTCAGTCTGTTTTTTAAGGTGATCGAGACAGTCAGCGCACAGACCTTGGCTTTCGTG
CGGTATCACTCCGCAATGAGTCAGTCAGACAACCATCAAAGATCCCTCCCTGGACTATCTATCACTGAGATA
AATGGCCTCCTCAGTCAGGAGCAGCAAAAGCAGGATGTCTTGATTTATATTAGGGATGAACTTGTGCGCTTC
GACCAATAACCAAGCCTTAGCGCAGCAGAATACTCGGGCAGCCGCATGTATGGCGGGTGGGGCTGACCGAGGT
CTTTGTTTCATCAGTCACTAAACAGAGCAAGACCCATAAAGTCTCTAAACAAAAAAGAGAATGGCACGGGGAT
40 AGTGCTCTTCGTTGTCATAGCTGCAACCGTTCTGAAACACCAGAATGGCGTCGTGGTCCGGACGGCCCCCGA
ACTCTTTGTAACGCCTGTGGTTTACATTATGCAAAATTGTCTCGACGAACGGGCAAATTTGTGGCGTTGGAC
GATATTGGCATCAGGGGGCAAAACA

SEQ ID NO. 123

MTAPITDVSLGDELHLDGEDVAMAHADALDDFDLDMLGDGDSPPGPGFTPHDSAPYGALDMADFEFEQMFTDA
LGIDDFGGIDTSLYKKAGSTMVLLKKHLKDVNREDQRQMPRQRLPSIQEIFGETFLAIPSNPSYALPSHTRH
AAPPALPAVYEIAHSIEGAPSNEQGLLPKISTVERSLGIISPVNELQHPEVIRPENPSFSPNGCSLNESRRF
SKHPDLSIPQPGLLSCDPMDLAQPSFVEPPNVFHGFPIRKIPNSIPPQPKQLCLPEKRTPSSLDFSLFFKVI
ETVSAQTLAFVRYHSAMSQSDNHQRSPLGLSITEINGLLSQEQQKQDVLIYIRDELVRFDQYQALAQONTRA
50 AACMAGGADRGLCSSVTKQSKTHKVSQKREWHGDSALRCHSCNRSETPEWRRGPDGPRTLCLNACGLHYAKL
SRRTGKFVALDDIGIRGKT

SEQ ID NO. 124

MTAPITDVSLGDELHLDGEDVAMAHADALDDFDLDMLGDGDSPPGPGFTPHDSAPYGALDMADFEFEQMFTDA
55 LGIDDFGGIMVLLKKHLKDVNREDQRQMPRQRLPSIQEIFGETFLAIPSNPSYALPSHTRHAAPPALPAVYE
IAHSIEGAPSNEQGLLPKISTVERSLGIISPVNELQHPEVIRPENPSFSPNGCSLNESRRFSKHPDLSIPQ
GLLSCDPMDLAQPSFVEPPNVFHGFPIRKIPNSIPPQPKQLCLPEKRTPSSLDFSLFFKVIETVSAQTLAFV

RYHSAMSQSDNHQSRSLPGLSITEINGLLSQEQKQDVLIYIRDELVRFDQYQALAQQNTRAAACMAGGADRG
LCSSVTKQSKTHKVSQKREWHGDSALRCHSCNRSETPEWRRGPDGPRTL NACGLHYAKLSRRTGKFVALD
DIGIRGKT

5 **SEQ ID NO. 125**

ATGCTCGAGTTAGTCGATGCTATTCCGCTTCAGACCCAGCCAGTTCCTCCTGCTCCTGAAGTTCAGGTTTCAG
CCCCCTCCAATCGTGGAGACGGCCCATTTCAACCCTTCATGGGGATATGATTTGAACCTTCTTTCTCATGCC
GCGAGTCATGTCGCTCTTGAGGGACAACAAGAAAGTCTAGAGACTCTTCGGAAGCCTTCGCAAAACATTCAA
10 GCGCCGCCGCCGCCGCCGCCGCTTTCTCATATACCAGAAAGAGGGATCACTGATAACTATGGTGTGAGCCT
TCGATTCTAGACCTTACAGATTTAGGTGATCCGGTTCAGGACTTTACCGTCTTCCTAGAAAGCGTCTGTCTC
TCTTCGGACTGGGACTCCGGCATCTTCTCTAGTGTAGAAGAGCCCTTATTGCCAACTAGCCTACCCATGGAC
TCGAAACCCCCAGCCCGTGAGAGTTCCAGGCTGGGC**ATCGATAACAAGTTTGTACAAAAAGCAGGCTCCACA**
ATGACGGAGAACCACACCCCTTCTACTACGCAGCCGACGTTGCCTGCGCCTGTTGCTGAAGCCGCGCCGATC
CAAGCAAACCCGGCTCCTTCTGCCTCAGTCACGGCGACTGCTGCCGCCGCTACTGCGGCGGTGAACAACGCC
15 CCCTCTATGAACGGCGCCGGTGAGCAGTTGCCTTGCCAGTGGGTTGGTTGCACGGAGAAGTCCCCCACTGCC
GAGTCTCTATATGAGCATGTTTGCGAGCGTCATGTTGGACGTAAAAGCACCAACAACCTCAACCTGACCTGC
CAGTGGGGCACTTGCAACACCACAACAGTCAAGCGTGATCATATCACCTCCCACATCCGCGTTCATGTGCCA
CTTAAGCCGCACAAATGCGACTTTTGTGGTAAGGCTTTCAGCGCCCCCAGGATTTGAAGAAGCATGTCAAG
ACTCATGCGGACGACTCCGAGATCCGCTCCCCCGAACC GGCGATGAAGCACCTGATATGATGTTCCCCCAA
20 AACCTAAGGGTTACGCTGCTGCCACACATTACTTCGAAAGCCCTATCAACGGCATCAATGGG

SEQ ID NO. 126

ATGCTCGAGTTAGTCGATGCTATTCCGCTTCAGACCCAGCCAGTTCCTCCTGCTCCTGAAGTTCAGGTTTCAG
CCCCCTCCAATCGTGGAGACGGCCCATTTCAACCCTTCATGGGGATATGATTTGAACCTTCTTTCTCATGCC
25 GCGAGTCATGTCGCTCTTGAGGGACAACAAGAAAGTCTAGAGACTCTTCGGAAGCCTTCGCAAAACATTCAA
GCGCCGCCGCCGCCGCCGCCGCTTTCTCATATACCAGAAAGAGGGATCACTGATAACTATGGTGTGAGCCT
TCGATTCTAGACCTTACAGATTTAGGTGATCCGGTTCAGGACTTTACCGTCTTCCTAGAAAGCGTCTGTCTC
TCTTCGGACTGGGACTCCGGCATCTTCTCTAGTGTAGAAGAGCCCTTATTGCCAACTAGCCTACCCATGGAC
TCGAAACCCCCAGCCCGTGAGAGTTCCAGGCTGGGCATGACGGAGAACCACACCCCTTCTACTACGCAGCCG
30 ACGTTGCCTGCGCCTGTTGCTGAAGCCGCGCCGATCCAAGCAAACCCGGCTCCTTCTGCCTCAGTCACGGCG
ACTGCTGCCGCCGCTACTGCGGCGGTGAACAACGCCCCCTCTATGAACGGCGCCGGTGAGCAGTTGCCTTGC
CAGTGGGTTGGTTGCACGGAGAAGTCCCCCACTGCCGAGTCTCTATATGAGCATGTTTGCGAGCGTCATGTT
GGACGTAAAAGCACCAACAACCTCAACCTGACCTGCCAGTGGGGCACTTGCAACACCACAACAGTCAAGCGT
GATCATATCACCTCCCACATCCGCGTTCATGTGCCACTTAAGCCGCACAAATGCGACTTTTGTGGTAAGGCT
35 TTCAAGCGCCCCCAGGATTTGAAGAAGCATGTCAAGACTCATGCGGACGACTCCGAGATCCGCTCCCCCGAA
CCGGGCATGAAGCACCTGATATGATGTTCCCCCAAACCTAAGGGTTACGCTGCTGCCACACATTACTTC
GAAAGCCCTATCAACGGCATCAATGGG

40 **SEQ ID NO. 127**

MLELVDAIPLQTQPVPPAPEVQVQPPPIVETAHFNPSWGYDLNLLSHAASHVALEGQQESLET LRKPSQNIQ
APPPPPPLSHIPERGITDNYGVEPSILDLTDLGDPVQDFTVFLESVCLSSDWDSGIFSSVEEPLLPTSLPMD
SKPPARESSRLG**IDTSLYKKAGST**MTENHTPSTTQPTLPAPVAEAAPIQANPAPSASVTATAAAATAAVNNA
PSMNGAGEQLPCQWVGCTEKSPTAESLYEHV CERHVGRKSTNNLNLTCQWGTCNTTTVKRDHITSHIRVHVP
45 LKPHKCDFCGKA FKRPQDLKKHKV KTHADDSEIRSPEPGMKHPDMMFPQNP KG YAAATHYFESPINGING

SEQ ID NO. 128

MLELVDAIPLQTQPVPPAPEVQVQPPPIVETAHFNPSWGYDLNLLSHAASHVALEGQQESLET LRKPSQNIQ
APPPPPPLSHIPERGITDNYGVEPSILDLTDLGDPVQDFTVFLESVCLSSDWDSGIFSSVEEPLLPTSLPMD
50 SKPPARESSRLG MTENHTPSTTQPTLPAPVAEAAPIQANPAPSASVTATAAAATAAVNNA PSMNGAGEQLPC
QWVGCTEKSPTAESLYEHV CERHVGRKSTNNLNLTCQWGTCNTTTVKRDHITSHIRVHVP LKPHKCDFCGKA
FKRPQDLKKHKV KTHADDSEIRSPEPGMKHPDMMFPQNP KG YAAATHYFESPINGING

55 **SEQ ID NO. 129**

ATGCTCGAGTTAGTCGATGCTATTCCGCTTCAGACCCAGCCAGTTCCTCCTGCTCCTGAAGTTCAGGTTTCAG
CCCCCTCCAATCGTGGAGACGGCCCATTTCAACCCTTCATGGGGATATGATTTGAACCTTCTTTCTCATGCC

GCGAGTCATGTCGCTCTTGAGGGACAACAAGAAAGTCTAGAGACTCTTCGGAAGCCTTCGCAAAACATTCAA
GCGCCGCCGCCGCCGCCGCCGCTTTCTCATATAACCAGAAAGAGGGATCACTGATAACTATGGTGTGAGCCT
TCGATTCTAGACCTTACAGATTTAGGTGATCCGGTTCAGGACTTTACCGTCTTCCTAGAAAGCGTCGATCTC
TCTTCGGACTGGGACTCCGGCATCTTCTCTAGTGTAGAAGAGCCCTTATTGCCAACTAGCCTACCCATGGAC
5 TCGAAACCCCCAGCCCGTGAGAGTTCCAGGCTGGGC**ATCGATACAAGTTTGTACAAAAAGCAGGCTCCACA**
ATGACGGAGAACCACACCCCTTCTACTACGCAGCCGACGTTGCCTGCGCCTGTTGCTGAAGCCGCGCCGATC
CAAGCAAACCCGGCTCCTTCTGCCTCAGTCACGGCGACTGCTGCCGCCGCTACTGCGGGCGGTGAACAACGCC
CCCTCTATGAACGGCGCCGGTGAGCAGTTGCCTTGCCAGTGGGTTGGTTGCACGGAGAAGTCCCCCACTGCC
GAGTCTCTATATGAGCATGTTTGCGAGCGTCATGTTGGACGTAAAAGCACCAACAACCTCAACCTGACCTGC
10 CAGTGGGGCACTTGCAACACCACAACAGTCAAGCGTGATCATATCACCTCCCACATCCGCGTTCATGTGCCA
CTTAAGCCGCACAAATGCGACTTTTGTGGTAAGGCTTTCAAGCGCCCCCAGGATTTGAAGAAGCATGTCAAG
ACTCATGCGGACGACTCCGAGATCCGCTCCCCGAACCGGGCATGAAGCACCTGATATGATGTTCCCCCAA
AACCCTAAGGGTTACGCTGCTGCCACACATTACTTCGAAAGCCCTATCAACGGCATCAATGGG

SEQ ID NO. 130

ATGCTCGAGTTAGTCGATGCTATTCCGCTTCAGACCCAGCCAGTTCCTCCTGCTCCTGAAGTTCAGGTTTCAG
CCCCCTCCAATCGTGGAGACGGCCCATTTCAACCCTTCATGGGGATATGATTTGAACCTTCTTTCTCATGCC
GCGAGTCATGTCGCTCTTGAGGGACAACAAGAAAGTCTAGAGACTCTTCGGAAGCCTTCGCAAAACATTCAA
GCGCCGCCGCCGCCGCCGCCGCTTTCTCATATAACCAGAAAGAGGGATCACTGATAACTATGGTGTGAGCCT
20 TCGATTCTAGACCTTACAGATTTAGGTGATCCGGTTCAGGACTTTACCGTCTTCCTAGAAAGCGTCGATCTC
TCTTCGGACTGGGACTCCGGCATCTTCTCTAGTGTAGAAGAGCCCTTATTGCCAACTAGCCTACCCATGGAC
TCGAAACCCCCAGCCCGTGAGAGTTCCAGGCTGGGCATGACGGAGAACCACACCCCTTCTACTACGCAGCCG
ACGTTGCCTGCGCCTGTTGCTGAAGCCGCGCCGATCCAAGCAAACCCGGCTCCTTCTGCCTCAGTCACGGCG
ACTGCTGCCGCCGCTACTGCGGCGGTGAACAACGCCCCCTCTATGAACGGCGCCGGTGAGCAGTTGCCTTGC
25 CAGTGGGTTGGTTGCACGGAGAAGTCCCCCACTGCCGAGTCTCTATATGAGCATGTTTGCGAGCGTCATGTT
GGACGTAAAAGCACCAACAACCTCAACCTGACCTGCCAGTGGGGCACTTGCAACACCACAACAGTCAAGCGT
GATCATATCACCTCCCACATCCGCGTTCATGTGCCACTTAAGCCGCACAAATGCGACTTTTGTGGTAAGGCT
TTCAAGCGCCCCCAGGATTTGAAGAAGCATGTCAAGACTCATGCGGACGACTCCGAGATCCGCTCCCCCGAA
CCGGGCATGAAGCACCTGATATGATGTTCCCCCAAACCCTAAGGGTTACGCTGCTGCCACACATTACTTC
30 GAAAGCCCTATCAACGGCATCAATGGG

SEQ ID NO. 131

MLELVDAIPLQTQPVPPAPEVQVQPPPIVETAHFNPSWGYDLNLLSHAASHVALEGQQESLET LRKPSQNIQ
35 APPPPPLSHIPERGITDNYGVEPSILDLDLGDVPVQDFTVFLESVDLSSDWDSGIFSSVEEPLLP TSLPMD
SKPPARESSRLG**IDTSLYKKAGST**MTENHTPSTTQPTLPAPVAEAAPIQANPAPSASVTATAAAATAAVNNA
PSMNGAGEQLPCQWVGCTEKSPTAESLYEHVCERHVGRKSTNNLNLTCQWGTCNTTTVKRDHITSHIRVHVP
LKPHKCDFCGKAFKRPQDLKKHVKTHADDSEIRSPEPGMKHPDMMFPQNPKGAAATHYFESPINGING

SEQ ID NO. 132

MLELVDAIPLQTQPVPPAPEVQVQPPPIVETAHFNPSWGYDLNLLSHAASHVALEGQQESLET LRKPSQNIQ
40 APPPPPLSHIPERGITDNYGVEPSILDLDLGDVPVQDFTVFLESVDLSSDWDSGIFSSVEEPLLP TSLPMD
SKPPARESSRLGMTENHTPSTTQPTLPAPVAEAAPIQANPAPSASVTATAAAATAAVNNAPSMNGAGEQLPC
QWVGCTEKSPTAESLYEHVCERHVGRKSTNNLNLTCQWGTCNTTTVKRDHITSHIRVHVPLKPHKCDFCGKA
45 FKRQDLKKHVKTHADDSEIRSPEPGMKHPDMMFPQNPKGAAATHYFESPINGING

SEQ ID NO. 133

ATGACGGAGAACCACACCCCTTCTACTACGCAGCCGACGTTGCCTGCGCCTGTTGCTGAAGCCGCGCCGATC
CAAGCAAACCCGGCTCCTTCTGCCTCAGTCACGGCGACTGCTGCCGCCGCTACTGCGGCGGTGAACAACGCC
50 CCCTCTATGAACGGCGCCGGTGAGCAGTTGCCTTGCCAGTGGGTTGGTTGCACGGAGAAGTCCCCCACTGCC
GAGTCTCTATATGAGCATGTTTGCGAGCGTCATGTTGGACGTAAAAGCACCAACAACCTCAACCTGACCTGC
CAGTGGGGCACTTGCAACACCACAACAGTCAAGCGTGATCATATCACCTCCCACATCCGCGTTCATGTGCCA
CTTAAGCCGCACAAATGCGACTTTTGTGGTAAGGCTTTCAAGCGCCCCCAGGATTTGAAGAAGCATGTCAAG
ACTCATGCGGACGACTCCGAGATCCGCTCCCCGAACCGGGCATGAAGCACCTGATATGATGTTCCCCCAA
55 AACCCTAAGGGTTACGCTGCTGCCACACATTACTTCGAAAGCCCTATCAACGGCATCAATGGGG**GATCT**ACC
GCCCCATTACCGACGTCAGCCTGGGGGACGAGCTCCACTTAGACGGCGAGGACGTGGCGATGGCGCATGCC
GACGCGCTAGACGATTTGATCTGGACATGTTGGGGGACGGGGATTCCCCGGGTCCGGGATTTACCCCCAC

GACTCCGCCCCCTACGGCGCTCTGGATATGGCCGACTTCGAGTTTGAGCAGATGTTTACCGATGCCCTGGGC
ATTGACGACTTTGGGGGA

SEQ ID NO. 134

5 ATGACGGAGAACCACACCCCTTCTACTACGCAGCCGACGTTGCCTGCGCCTGTTGCTGAAGCCGCGCCGATC
CAAGCAAACCCGGCTCCTTCTGCCTCAGTCACGGCGACTGCTGCCGCCGCTACTGCGGGCGGTGAACAACGCC
CCCTCTATGAACGGCGCCGGTGAGCAGTTGCCTTGCCAGTGGGTTGGTTGCACGGAGAAGTCCCCCACTGCC
GAGTCTCTATATGAGCATGTTTGGCAGCGTCATGTTGGACGTAAAAGCACCAACAACCTCAACCTGACCTGC
10 CAGTGGGGCACTTGCAACACCACAACAGTCAAGCGTGATCATATCACCTCCCACATCCGCGTTCATGTGCCA
CTTAAGCCGCACAAATGCGACTTTTGTGGTAAGGCTTTCAAGCGCCCCCAGGATTTGAAGAAGCATGTCAAG
ACTCATGCGGACGACTCCGAGATCCGCTCCCCGAACCGGGCATGAAGCACCTGATATGATGTTCCCCCAA
AACCCTAAGGGTTACGCTGCTGCCACACATTACTTCGAAAGCCCTATCAACGGCATCAATGGGACCGCCCCC
ATTACCGACGTCAGCCTGGGGGACGAGCTCCACTTAGACGGCGAGGACGTGGCGATGGCGCATGCCGACGCG
15 CTAGACGATTTTCGATCTGGACATGTTGGGGGACGGGGATTCCCCGGGTCCGGGATTTACCCCCACGACTCC
GCCCCCTACGGCGCTCTGGATATGGCCGACTTCGAGTTTGAGCAGATGTTTACCGATGCCCTGGGCATTGAC
GACTTTGGGGGA

SEQ ID NO. 135

20 MTENHTPSTTQPTLPAPVAEAAPIQANPAPSASVTATAAAATAAVNNAPSMNGAGEQLPCQWVGCTEKSPTA
ESLYEHVCERHVGRKSTNNLNLTCQWGTCTNTTTVKRDHITSHIRVHVPLKPHKCDFCGKAFKRPQDLKKHVK
THADDSEIRSPEPGMKHPDMMFPQNPKGYYAAATHYFESPINGING**GS**TAPITDVSLGDELHLDGEDVAMAH
DALDDFDLMLGDGDSPPGFTPHDSAPYGALDMADFEFEQMFTDALGIDDFGG

SEQ ID NO. 136

25 MTENHTPSTTQPTLPAPVAEAAPIQANPAPSASVTATAAAATAAVNNAPSMNGAGEQLPCQWVGCTEKSPTA
ESLYEHVCERHVGRKSTNNLNLTCQWGTCTNTTTVKRDHITSHIRVHVPLKPHKCDFCGKAFKRPQDLKKHVK
THADDSEIRSPEPGMKHPDMMFPQNPKGYYAAATHYFESPINGINGTAPITDVSLGDELHLDGEDVAMAHADA
LDDEFDLMLGDGDSPPGFTPHDSAPYGALDMADFEFEQMFTDALGIDDFGG

SEQ ID NO. 137

30 ATGGTTAAAGAGAGTATTATTGCTCTTGCTGAGCATGCGGCCTCCAGAGCCTCAAGAGTTATTCCTCCAGTG
AAGCTAGCCTATAAAAATATGCTTAAGGACCCTTCCTCCAAGTACAAGCCATTTAACGCTCCAAAGCTATCT
35 AATAGAAAGTGGCCGATAACCGGATCACGAGGGCTCCTCGTTGGTTATCAACAGATTTGAGAGATGGTAAC
CAATCTCTGCCGGATCCCATGTGAGTGAACAAAAGAAAGAAATACTTTCACAAGCTGGTCAATATTGGGTTT
AAAGAAATCGAGGTTTTCCTTCCCCTCTGCATCTCAAACAGATTTGACTTCACTAGATATGCTGTAGAAAAC
GCCCCAGACGATGTTAGTATTCAATGTCTTGTCCAATCTAGAGAACACTTGATTAAGAGAACGGTGGAAGCA
TTAACAGGTGCTAAAAGGCTACTATACATACTTACTTGGCAACAAGTGATATGTTCCGTGAAATTGTTTTT
40 AATATGTCTAGAGAGGAAGCTATTTCCAAGGCAGTAGAGGCCACCAAACTAGTTAGGAACTAATAAGGAT
GACCCTTCCCAACAAGCCACTCGTTGGTCTTATGAGTTTTCCCCCGAATGTTTCAGTGATACTCCAGGTGAA
TTTGCTGTAGAAATTTGCGAAGCTGTTAAGAAGGCTTGGGAACCTACCGAGGAAAATCCAATCATTTTCAAC
TTACCTGCTACCGTAGAAGTTGCCTCTCCAAATGTTTATGCTGATCAGATTGAATACTTCGCTACCCATATT
ACTGAGCGTGAGAAGGTTTGCATCTCTACACATTGTGACAATGACCGTGGTTGCGGTGTCGCCGCCACAGAG
45 TTAGGTATGCTTGCAGGTGCCGACCGTGTAGAAGGATGTCTCTTTGGTAATGGTGAACGTACAGGTAATGTG
GACTTGGTTACTGTTGCTATGAATATGTATAACCAAGGTGTTTCTCCTAATTTGGATTTCTCTGACTTGACC
TCTGTCTAGATGTGGTTGAGCGTTGTAATAAGATCCCAGTATCGCAAAGAGCACCATACGGCGGTGACTTG
GTCGTTTGTGCCTTTTCCGGTTCTCACCAGACGCCATTAAGAAGGGTTTCAACTTACAAAACAAGAAGCGT
GCTCAAGGTGAACTCAATGGAGAATCCCATACTTGCCATTGGATCCAAAGGACATTGGCCGTGATTACGAA
50 GCTGTATCAGAGTCAACTCTCAGTCTGGTAAAGGTGGTGCCGCTTGGGTATTTTTGAGATCTTTGGGTTTG
GATCTACCAAGAAACATGCAAATCGAATTTTCTAGCGCCGTTCAAGACCATGCTGACTCCTTGGGTAGAGAA
CTAAAATCAGATGAGATTTCCAAGTTATTCAAAGAGGCTTACAACCTACAATGACGAACAGTACCAAGCTATT
AGTTTAGTCAATTATAATGTTGAAAAATTCGGCACTGAACGTAGAGTGTTCACTGGTCAAGTCAAAGTAGGC
GACCAGATCCTCTACGCCGGACGCATCGTGGCCGGCATCACCGGCCGCCACAGGTGCGGTGCTGGCGCCTAT
55 ATCGCCGACATCACCGATGGGGAAGATCGGGCTCGCCACTTCGGGCTCATGAGCGCTTGTTTTCGGCGTGGGT
ATGGTGGCAGGCCCGTGGCCGGGGGACTGTTGGGCGCCATCTCCTTGCATGCACCATTCTTTCGGCGGGCG
GTGCTCAACGGCCTCAACCTACTACTGGGCTGCTTCCTAATGCAGGAGTCGCATAAGGGAGAGCGTCGACCG

ATGCCCTTGAGAGCCTTCAACCCAGTCAGCTCCTTCCGGTGGGCGCGGGGCATGACTATCGTCGCCGCACTT
ATGACTGTCTTCTTTATCATGCAACTCGTAGGACAGGTGCCGGCAGCGCTCTGGGTCATTTTCGGCGAGGAC
CGCTTTCGCTGGAGCGCGACGATGATCGGCCTGTGCTTGCGGTATTTCGGAATCTTGCACGCCCTCGCTCAA
GCCTTCGTCACTGGTCCCGCCACCAAACGTTTCGGCGAGAAGCAGGCCATTATCGCCGGCATGGCGGCCGAC
GCGCTGGGCTACGTCTTGCTGGCGTTCGCGACGCGAGGCTGGATGGCCTTCCCCATTATGATTCTTCTCGCT
TCCGGCGGCATCGGGATGCCCGCGTTGCAGGCCATGCTGTCCAGGCAGGTAGATGACGACCATCAGGGACAG
CTTCAAGGATCGCTCGCGGCTCTTACCAGCCTAACTTCGATCACTGGACCGCTGATCGTCACGGCGATTAT
GCCGCCTCGGCGAGCACATGGAACGGGTGGCATGGATTGTAGGCGCCGCCCTATACCTTGTCTGCCTCCCC
GCGTTGCGTCGCGGTGCATGGAGCCGGGCCACCTCGACC

SEQ ID NO. 138

MVKESIIALAEHAASRASRVIPVKLAYKNMLKDPSSKYKPFNAPKLSNRKWPDNRI TRAPRWLSTDLRDGN
QSLPDPMSVEQKKEYFHKLVNIGFKEIEVSFSPASQTDDEFTRYAVENAPDDVSIQCLVQSREHLIKRTVEA
LTGAKKATIHTYLATSDMFREIVFNMSREEAISKAVEATKLVRKLTKDDPSQQATRWSYEFSSPECFS DTPGE
FAVEICEAVKKAWEPTEENPIIFNL PATVEVASPNVYADQIEYFATHITEREKVCISTHCHNDRGCGVAATE
LGMLAGADRVEGCLFGNGERTGNVDLVTVAMNMYTQGVSPNLDFSDLT SVLDVVERCNKIPVSQRAPYGGDL
VVCAFSGSHQDAIKKGFNLQNKKRAQGETQWRIPYLPLDPKDIGRDYEAVIRVNSQSGKGGAAWVILRSLGL
DLPRNMQIEFSSAVQDHADSLGRELKSDEISKLFKEAYNYNDEQYQAI SLVNYNVEKFGTERRVFTGQVKVG
DQILYAGRIVAGITGATGAVAGAYIADITDGEDRARHFGLMSACFGVMVAGPVAGLLGAISLHAPFLAAA
VLNGLNLLLGCFMQESHKGERRPMPLRAFNPVSSFRWARGMTIVAALMTVFFIMQLVGQVPAALWVIFGED
RFRWSATMIGLSLAVFGILHALAQAFVTGPATKRFEKEQAI IAGMAADALGYVLLAFATRGWMAFPIMILLA
SGGIGMPALQAMLSRQVDDDHQGLQGLSLAALTSITGPLIVTAIYAASASTWNGLAWIVGAALYLVCLP
ALRRGAWSRATST